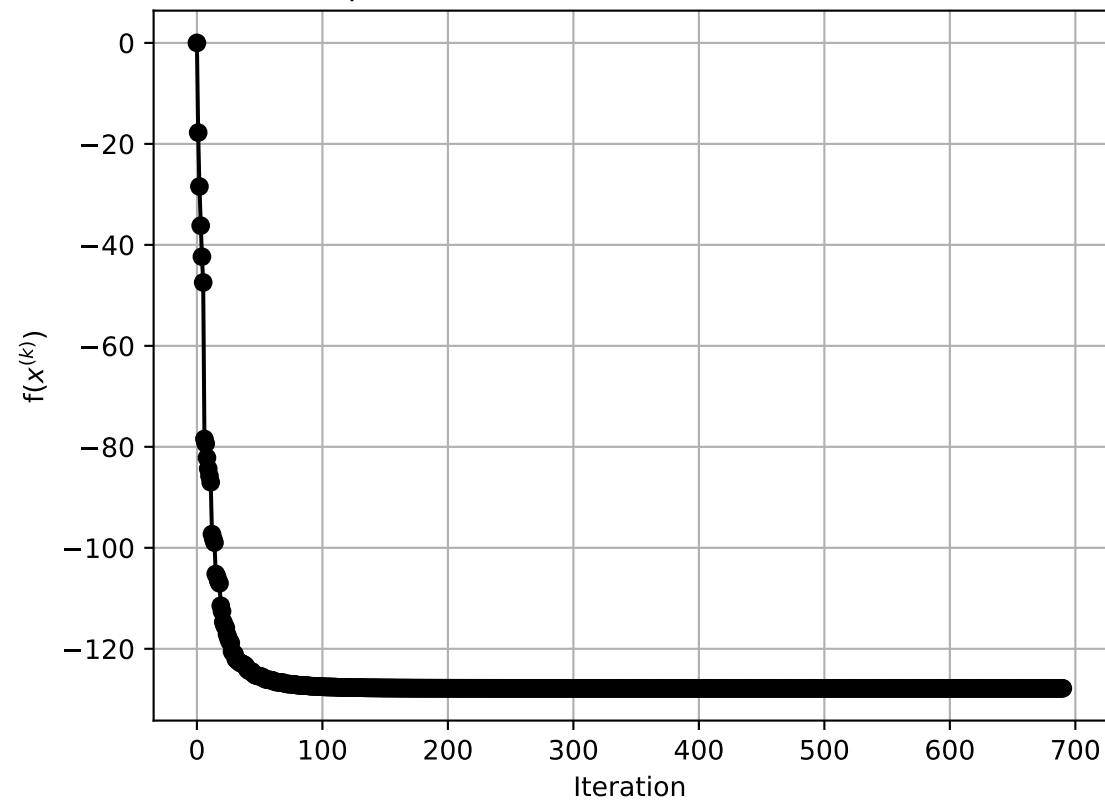
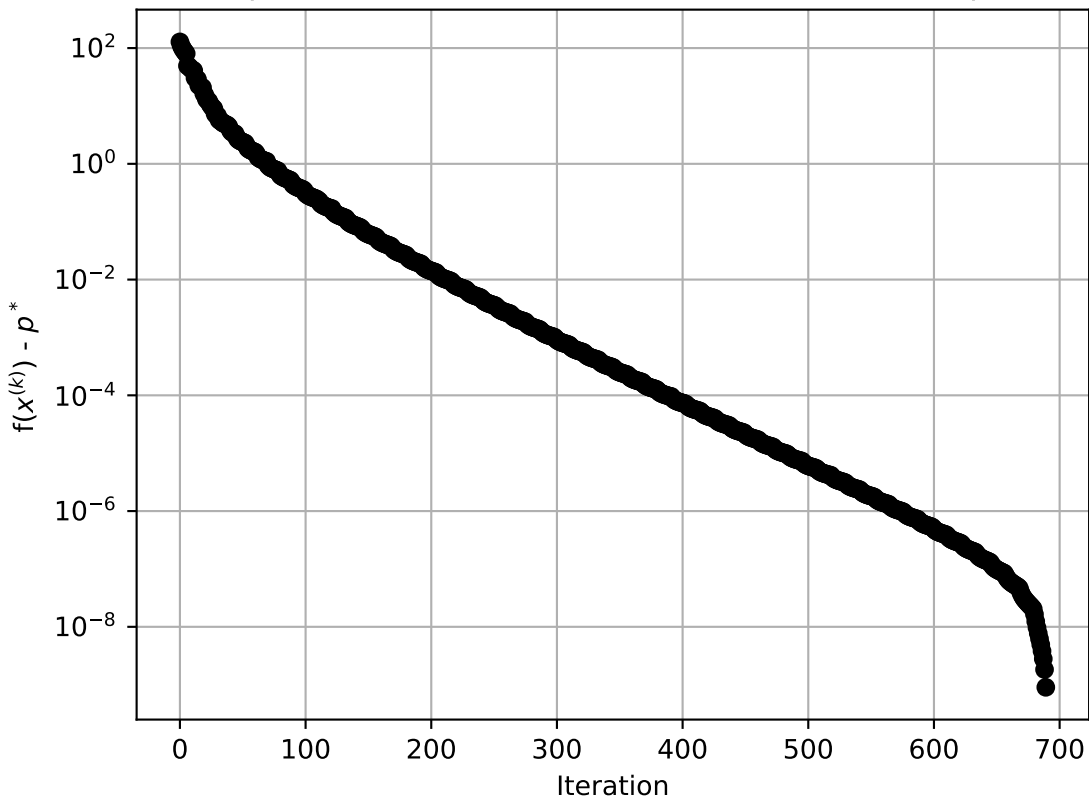


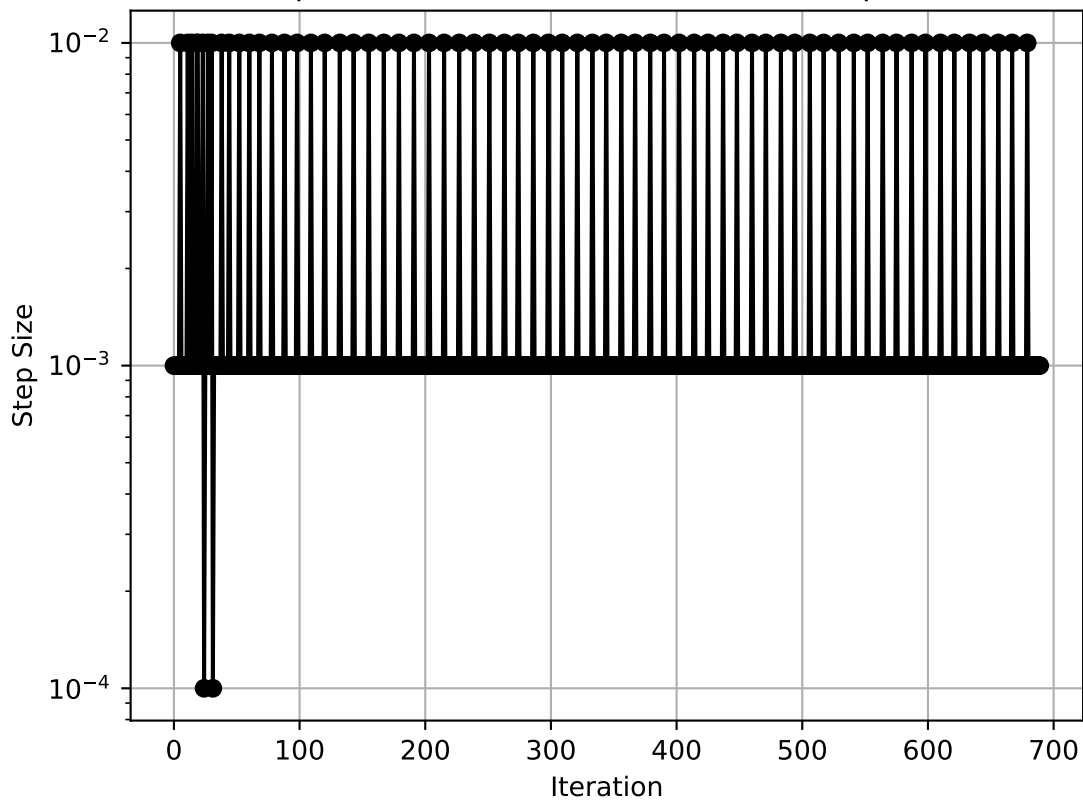
Experiment #1 Gradient Descent:  $f(x^{(k)})$



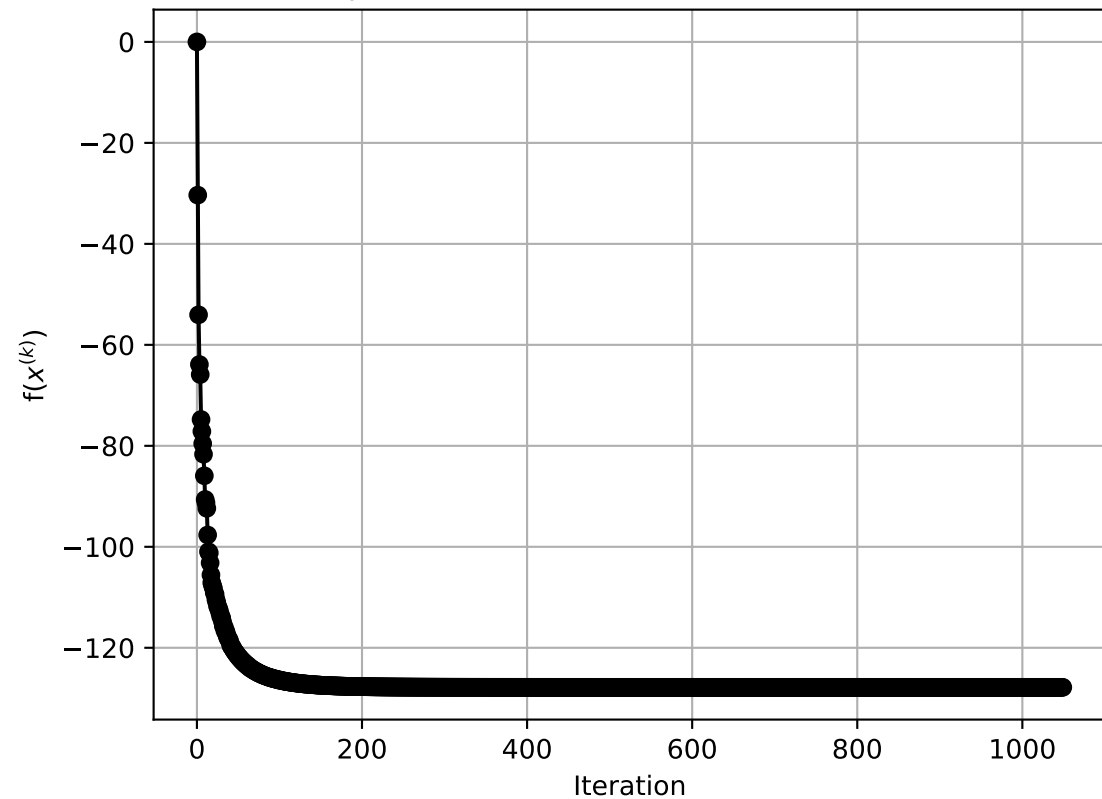
Experiment #1 Gradient Descent: Error  $f(x^{(k)}) - p^*$



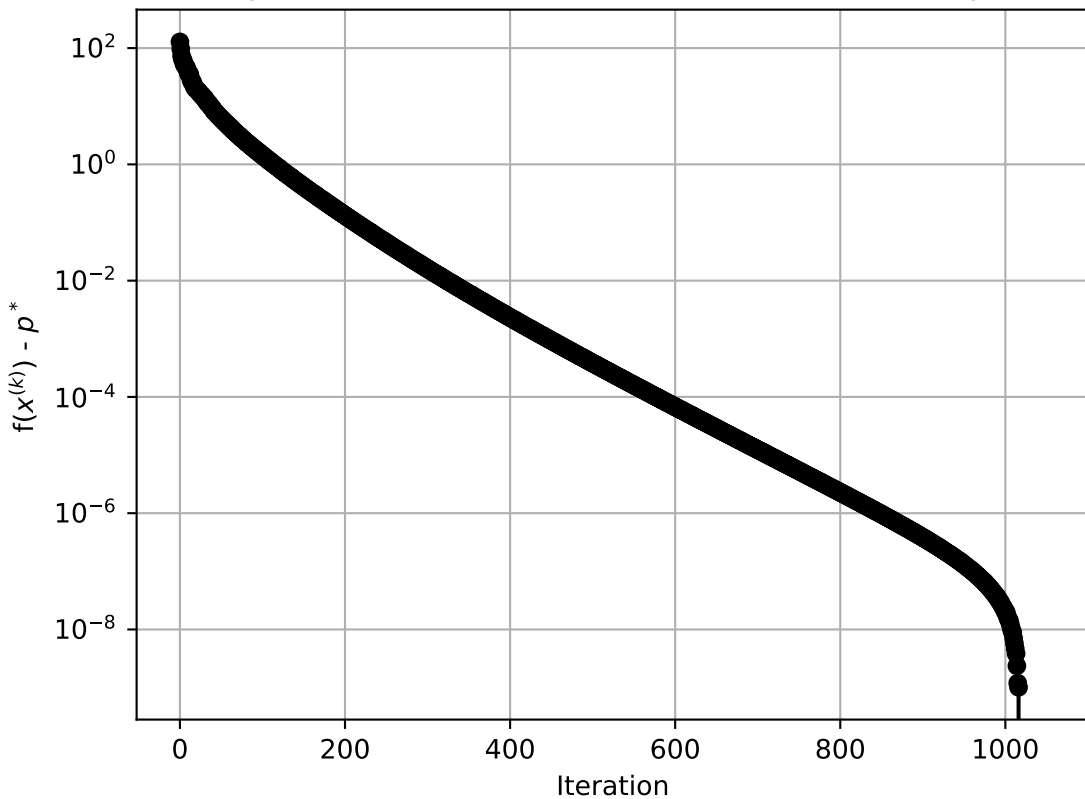
Experiment #1 Gradient Descent: Step Size



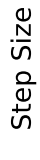
Experiment #2 Gradient Descent:  $f(x^{(k)})$



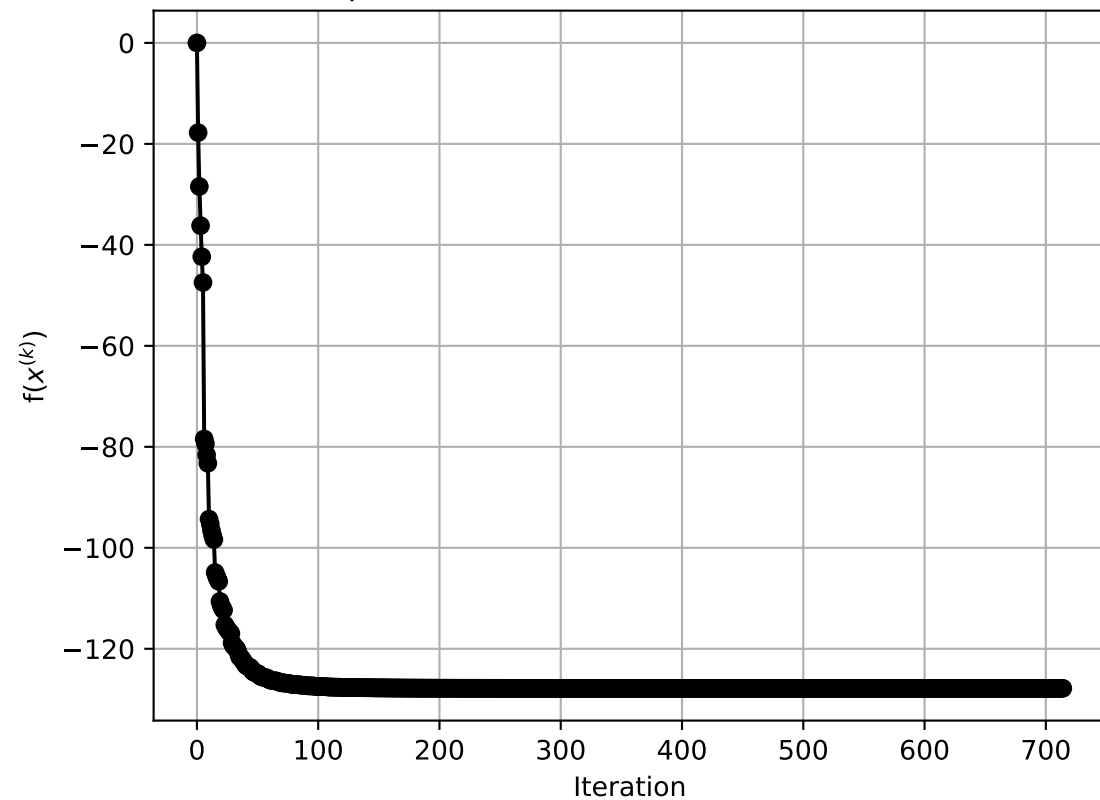
Experiment #2 Gradient Descent: Error  $f(x^{(k)}) - p^*$



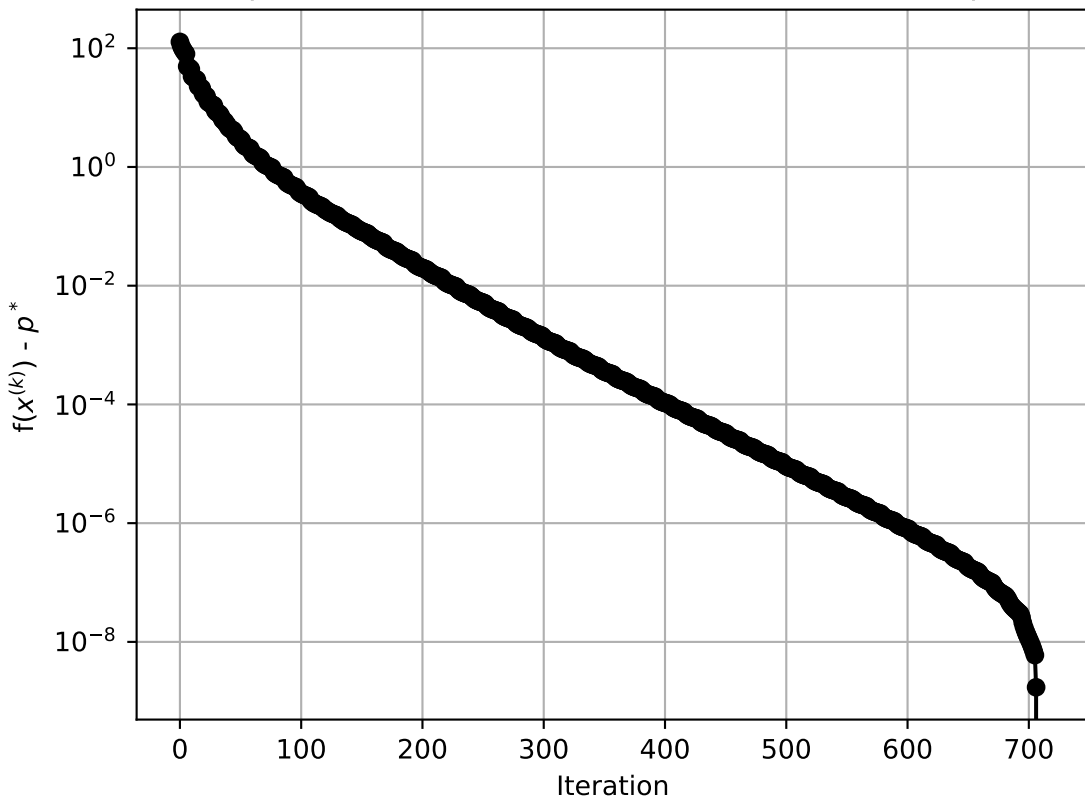
The plot displays the number of iterations required for convergence over a total of 1000 iterations. The y-axis represents the number of iterations, ranging from 0 to 1000. The x-axis is labeled 'Iteration' and ranges from 0 to 1000. The plot shows a single line that starts at 1000, drops sharply to around 100, and then remains relatively stable with minor fluctuations.



Experiment #3 Gradient Descent:  $f(x^{(k)})$

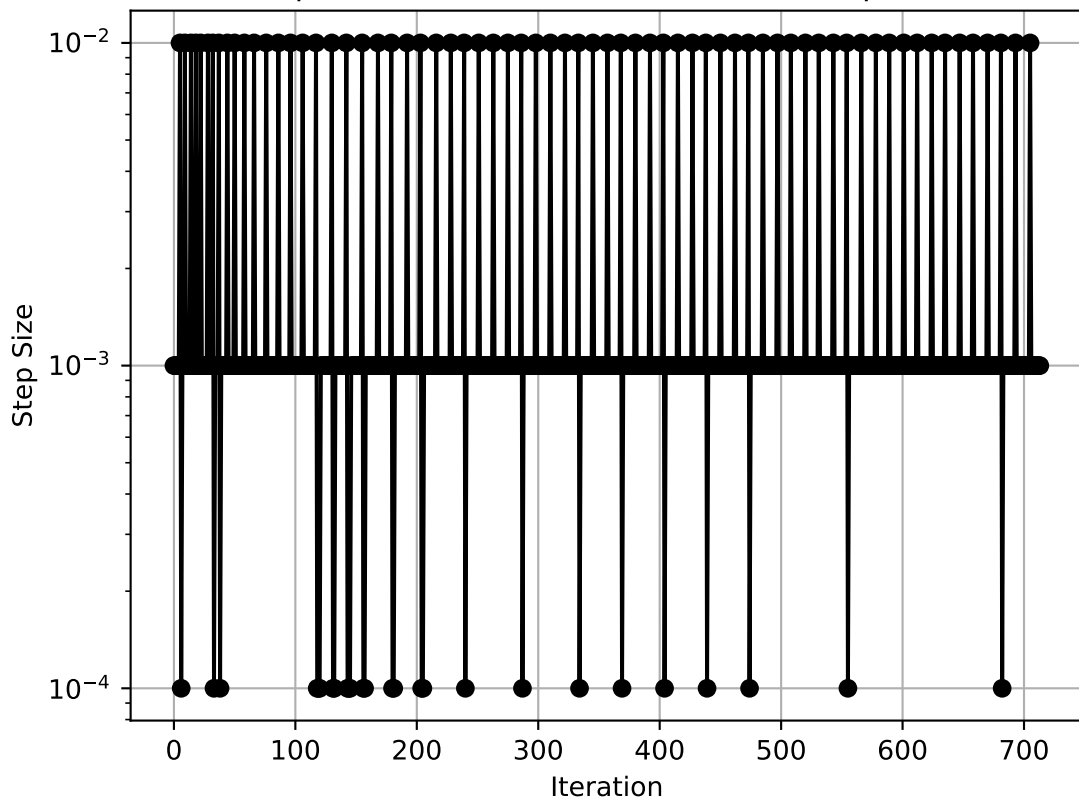


Experiment #3 Gradient Descent: Error  $f(x^{(k)}) - p^*$

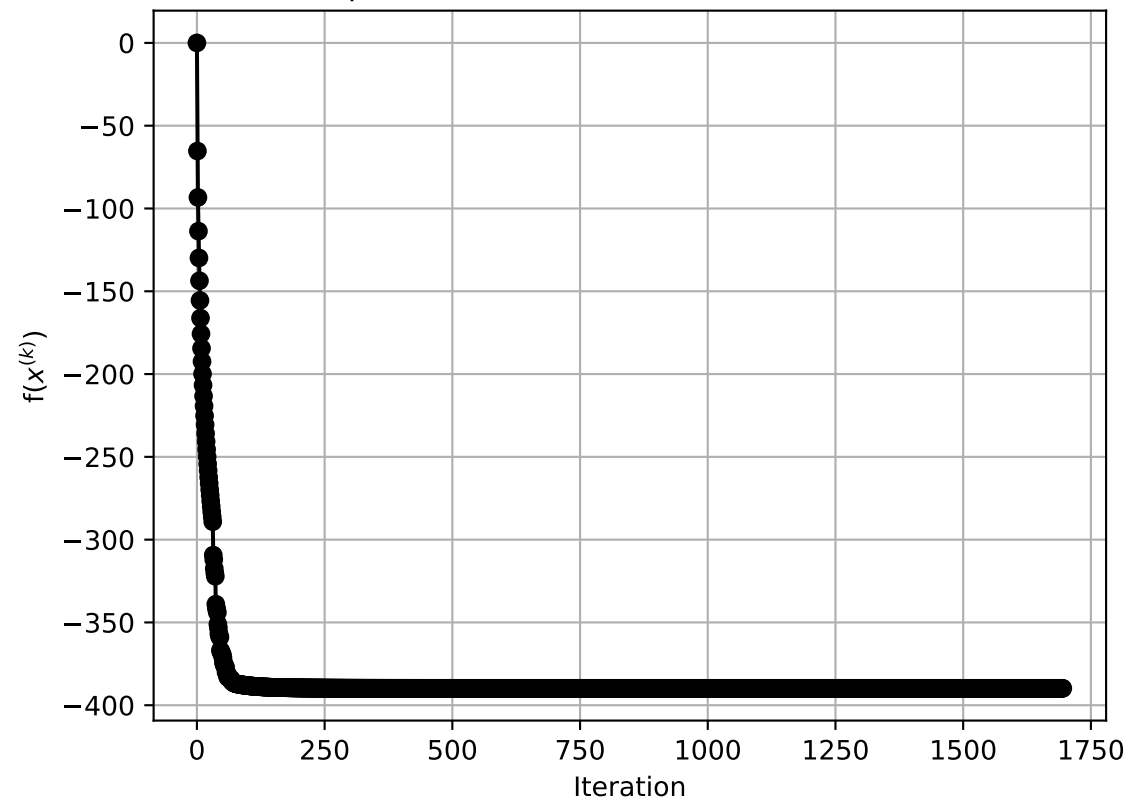




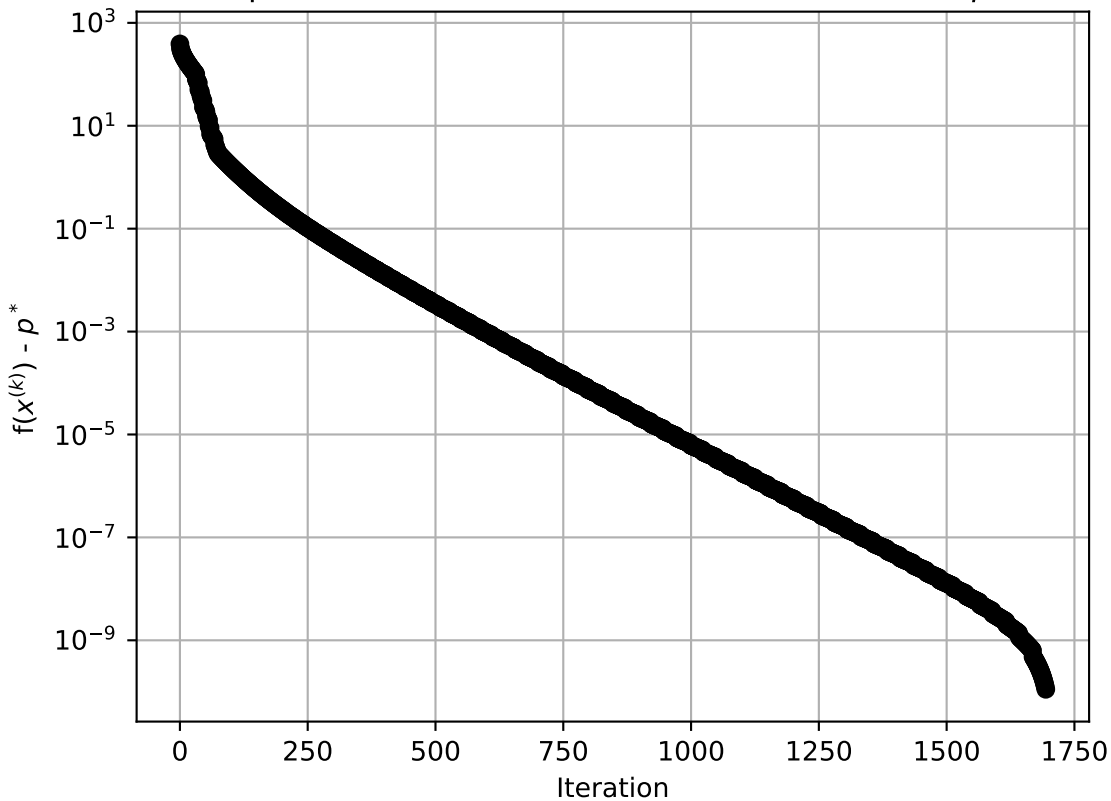
Experiment #3 Gradient Descent: Step Size



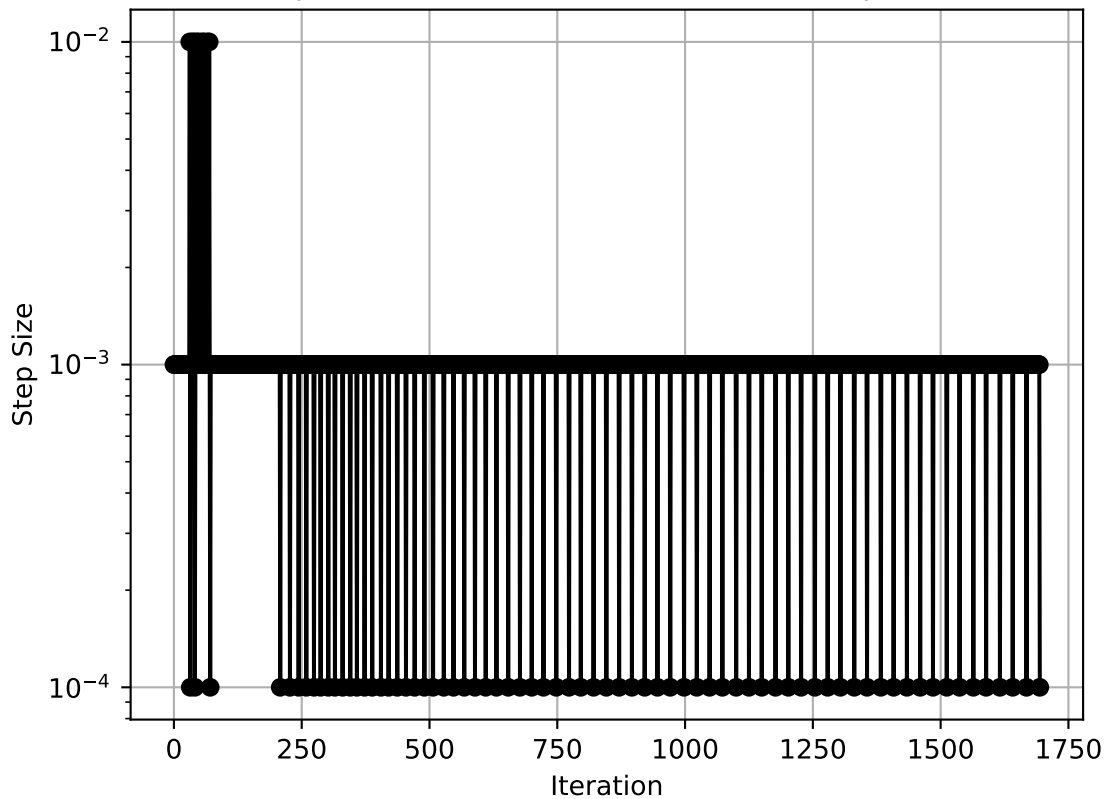
Experiment #4 Gradient Descent:  $f(x^{(k)})$



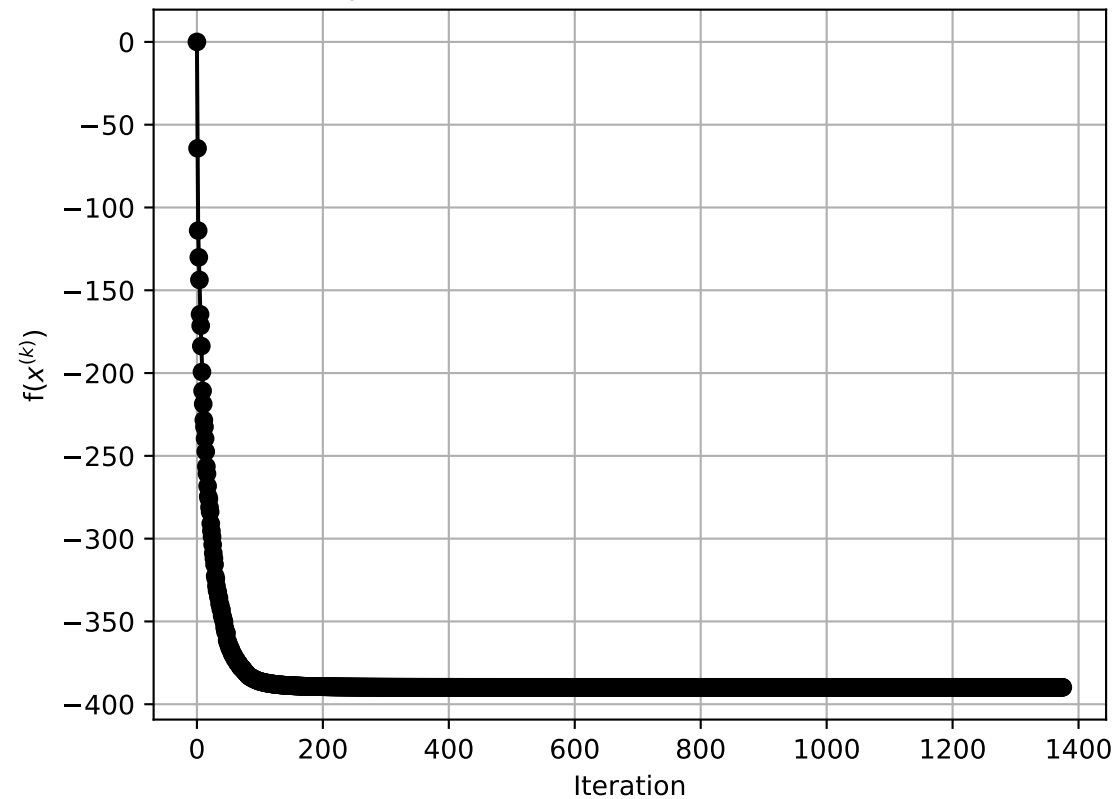
Experiment #4 Gradient Descent: Error  $f(x^{(k)}) - p^*$



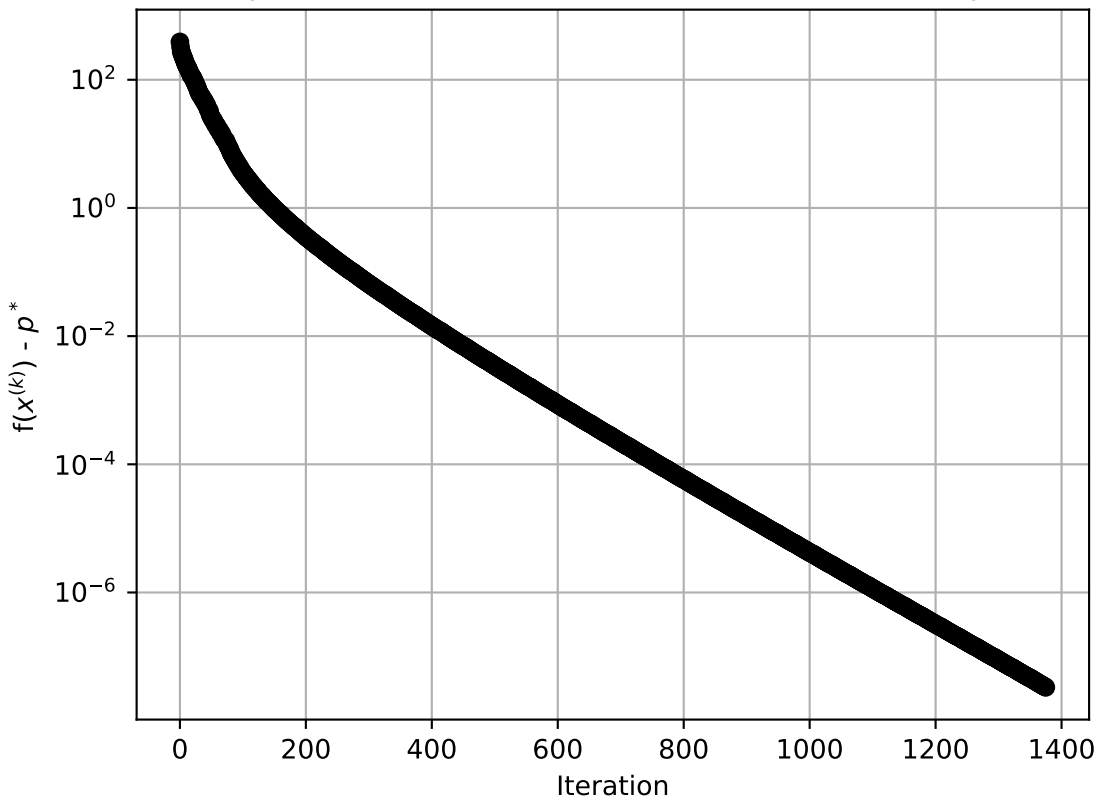
Experiment #4 Gradient Descent: Step Size



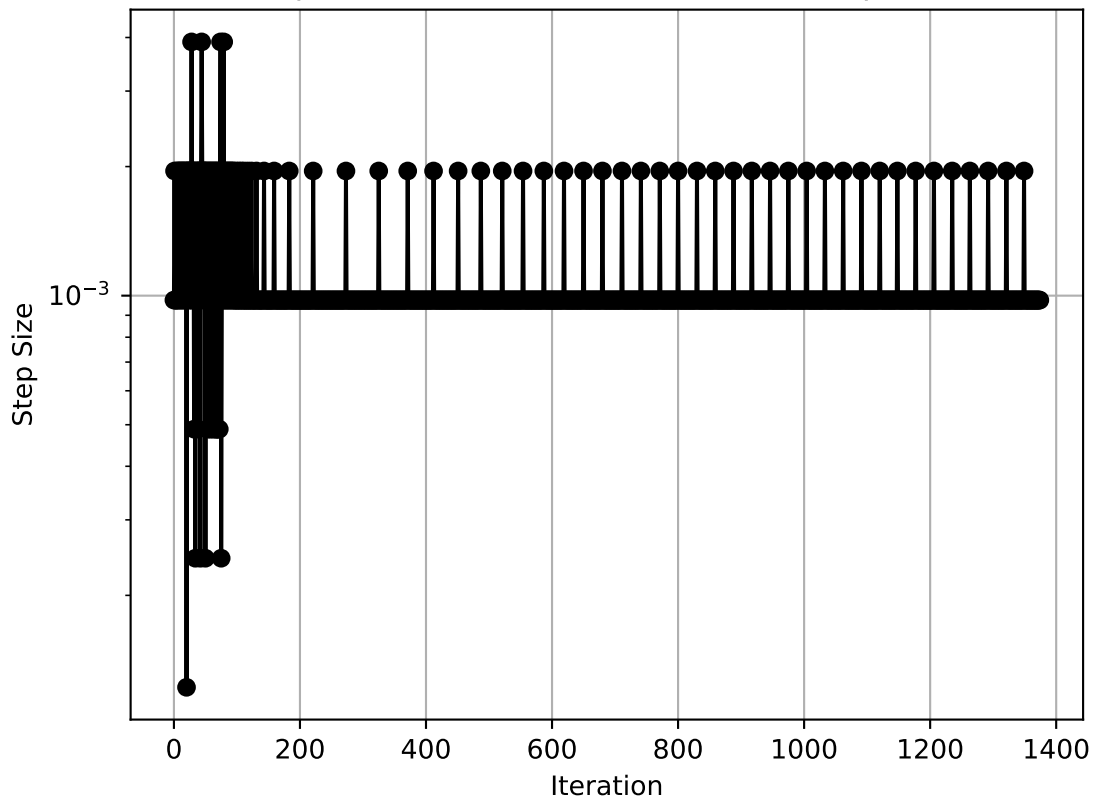
Experiment #5 Gradient Descent:  $f(x^{(k)})$



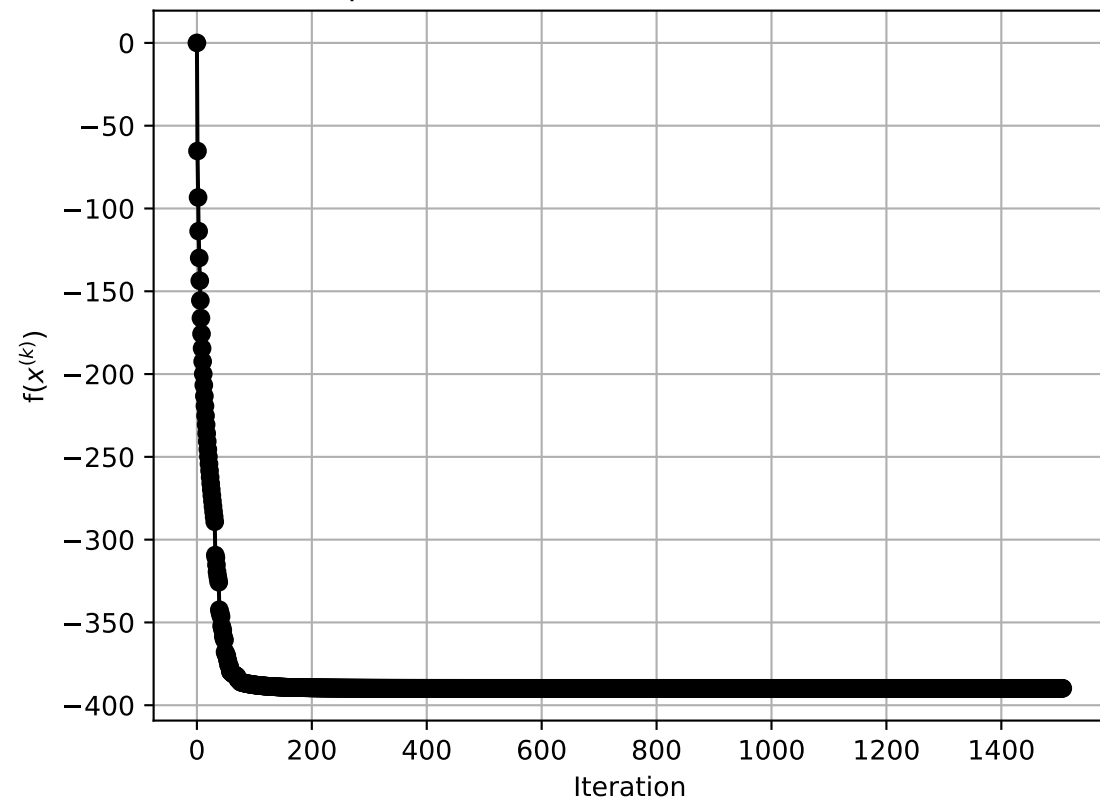
Experiment #5 Gradient Descent: Error  $f(x^{(k)}) - p^*$



Experiment #5 Gradient Descent: Step Size

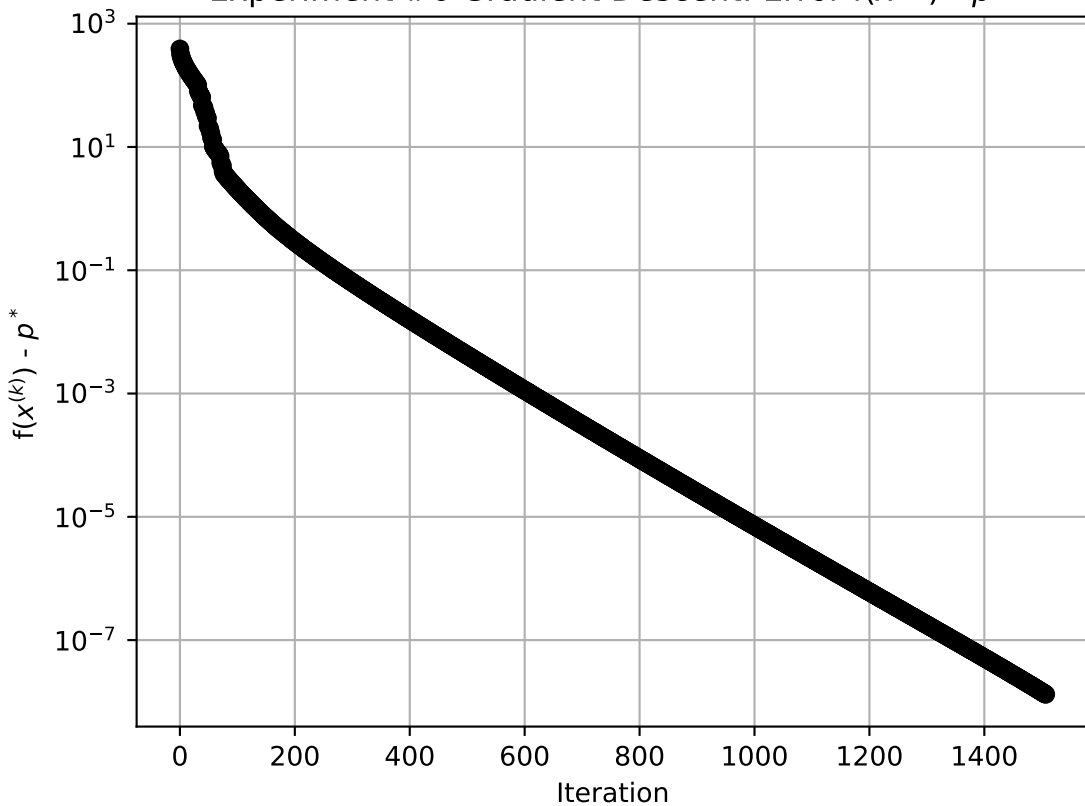


Experiment #6 Gradient Descent:  $f(x^{(k)})$

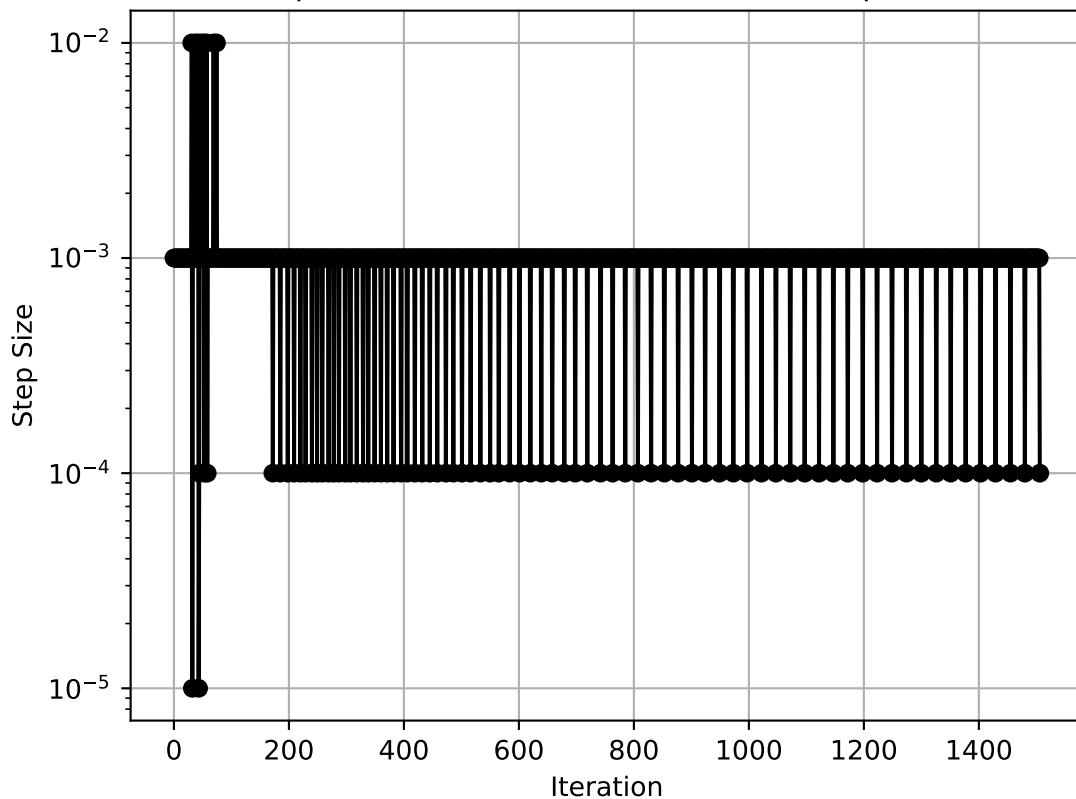




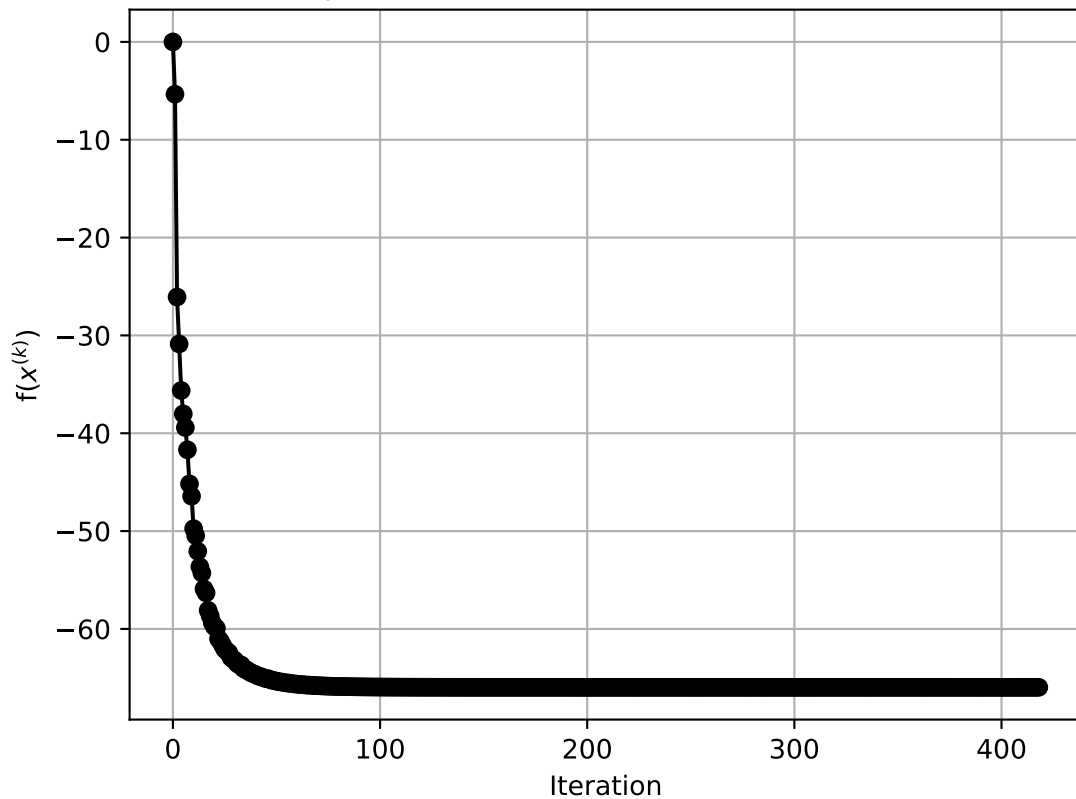
Experiment #6 Gradient Descent: Error  $f(x^{(k)}) - p^*$



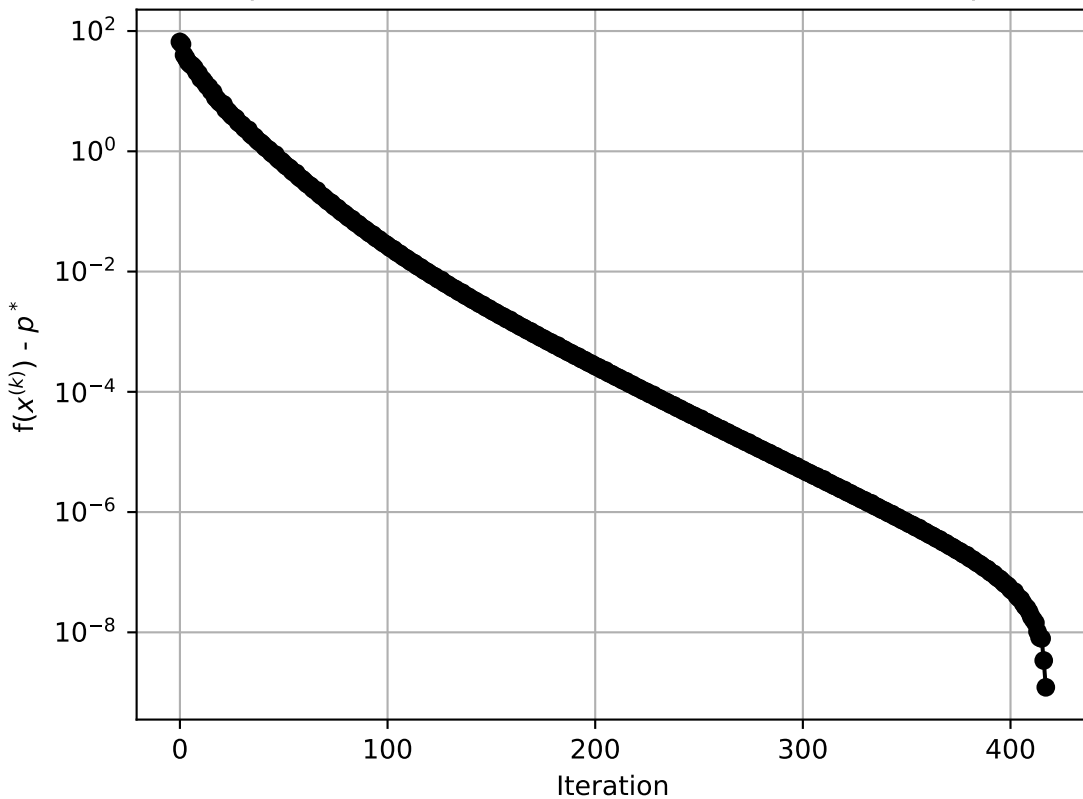
Experiment #6 Gradient Descent: Step Size



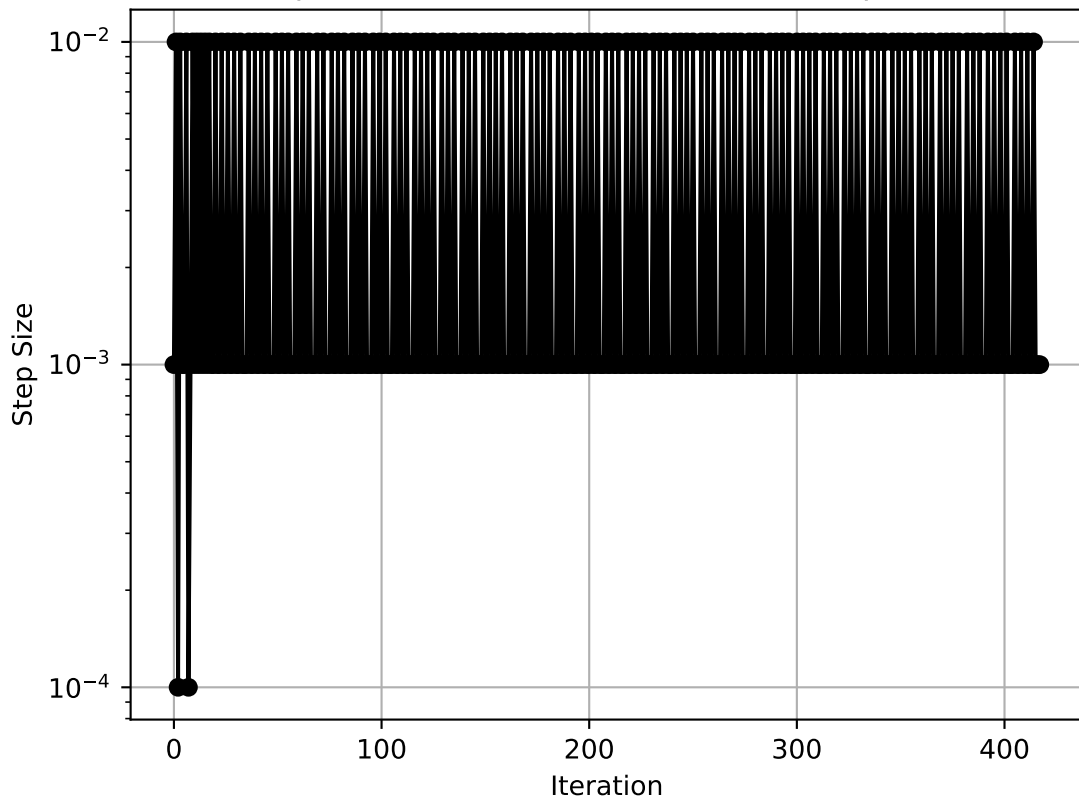
Experiment #7 Gradient Descent:  $f(x^{(k)})$



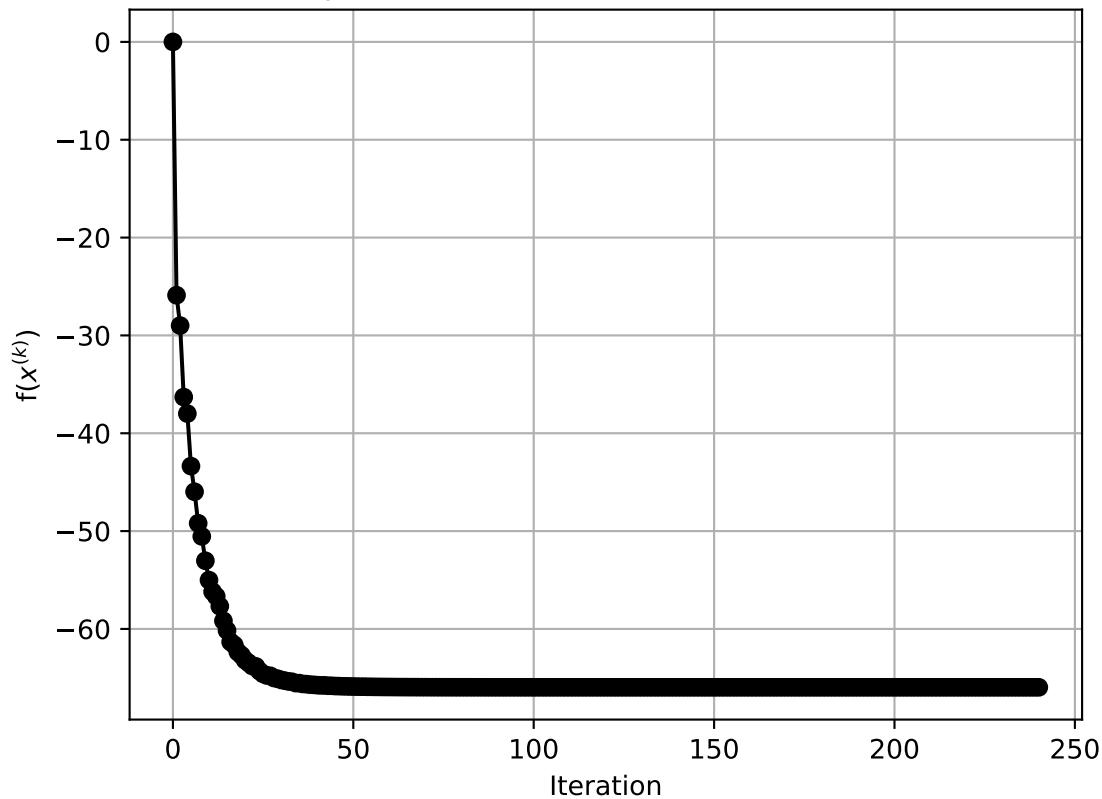
Experiment #7 Gradient Descent: Error  $f(x^{(k)}) - p^*$



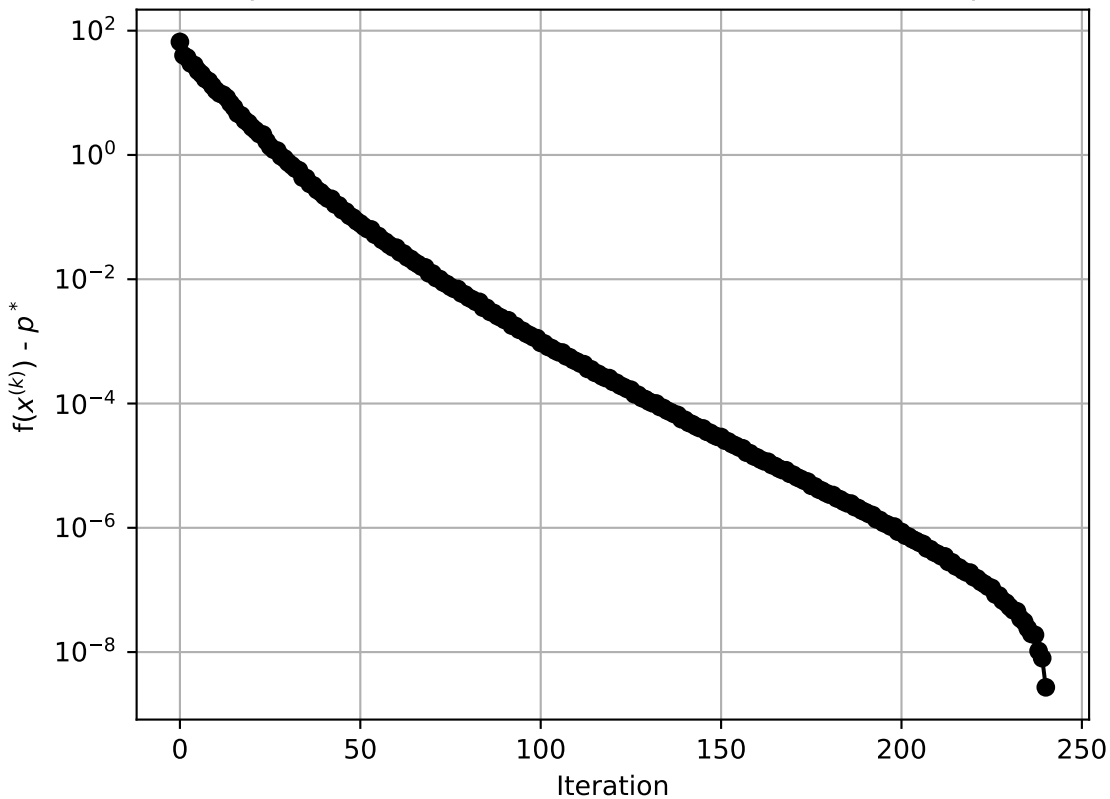
Experiment #7 Gradient Descent: Step Size



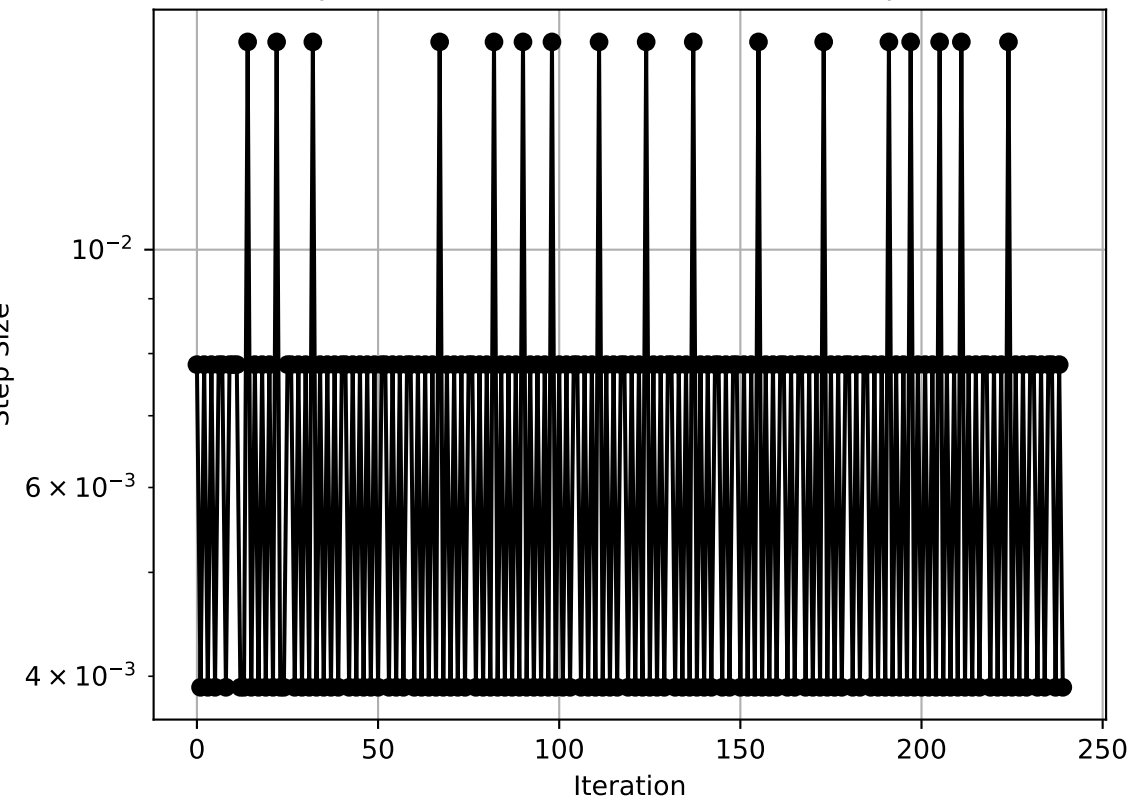
Experiment #8 Gradient Descent:  $f(x^{(k)})$



Experiment #8 Gradient Descent: Error  $f(x^{(k)}) - p^*$

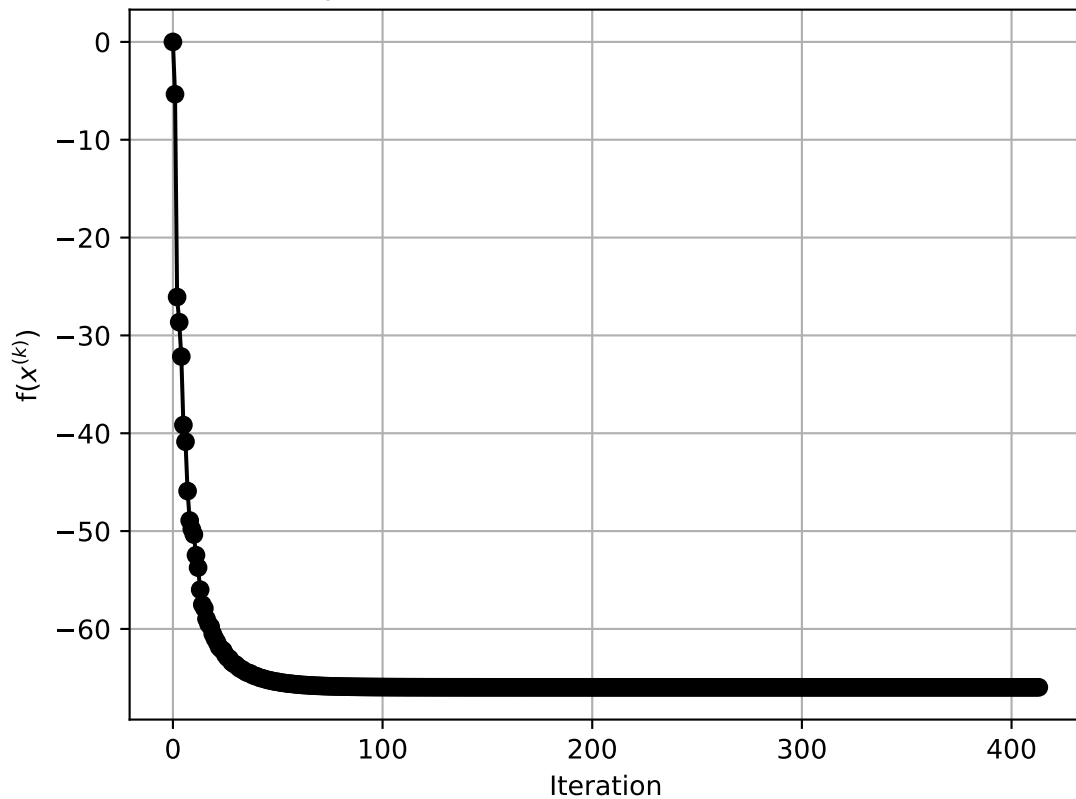


Experiment #8 Gradient Descent: Step Size

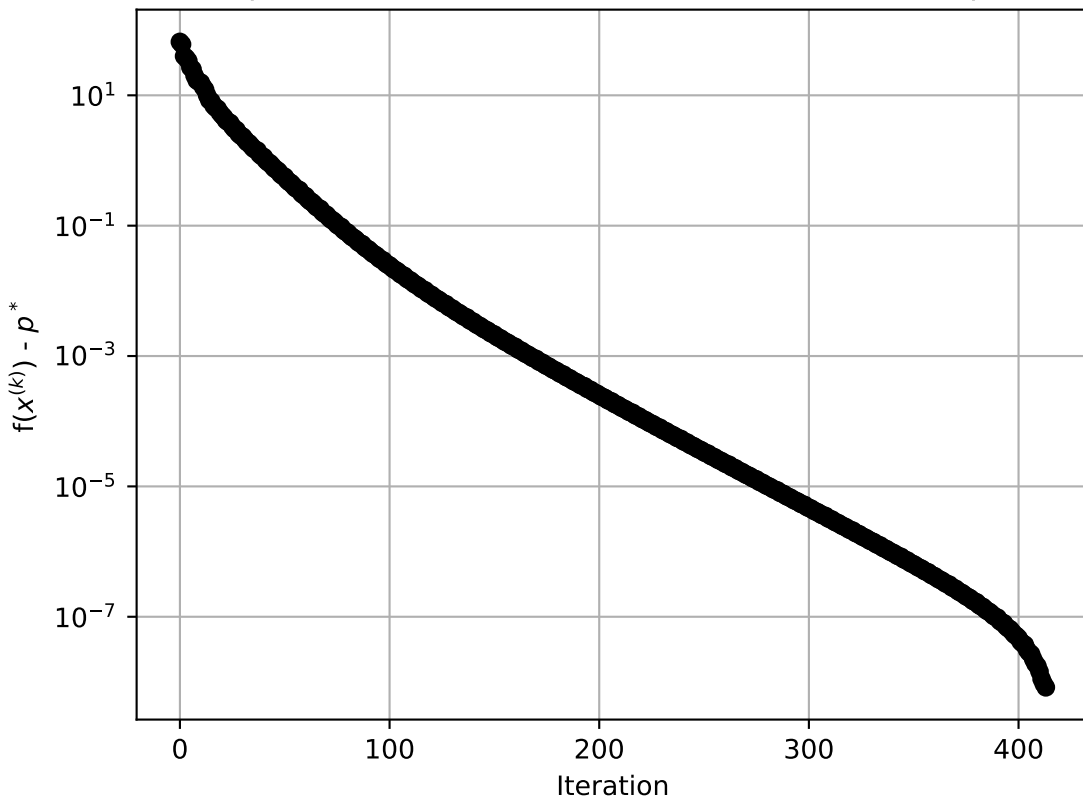




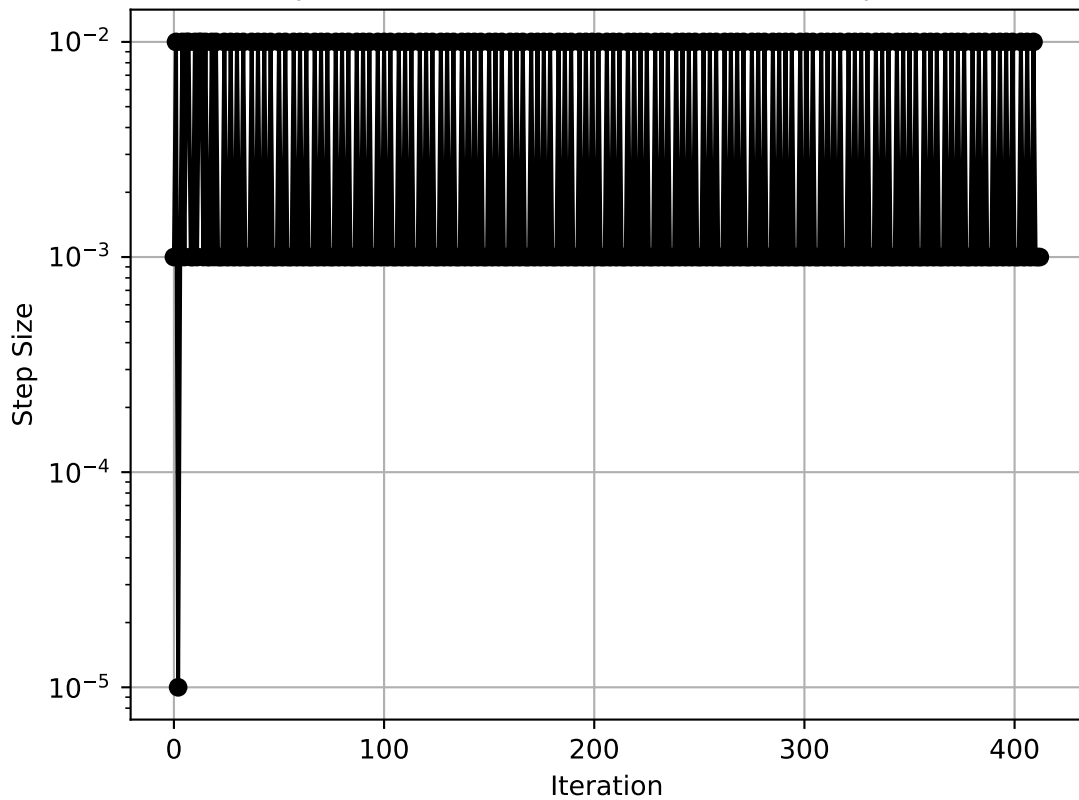
Experiment #9 Gradient Descent:  $f(x^{(k)})$



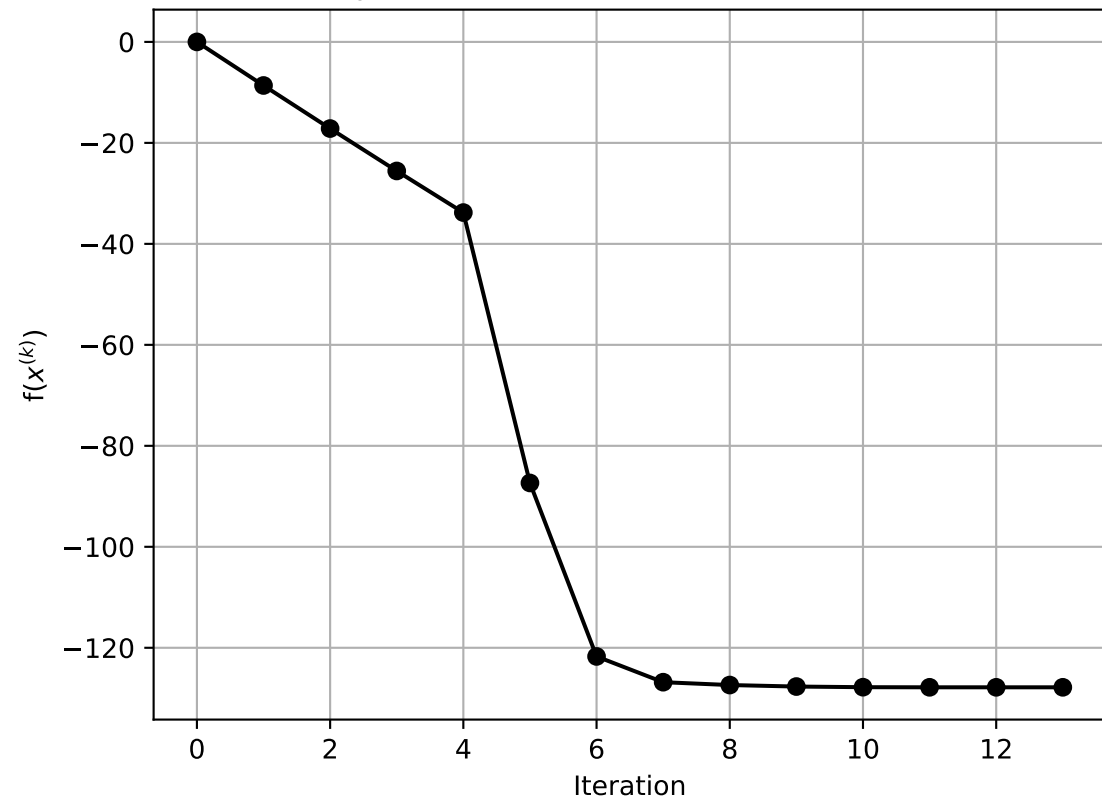
Experiment #9 Gradient Descent: Error  $f(x^{(k)}) - p^*$



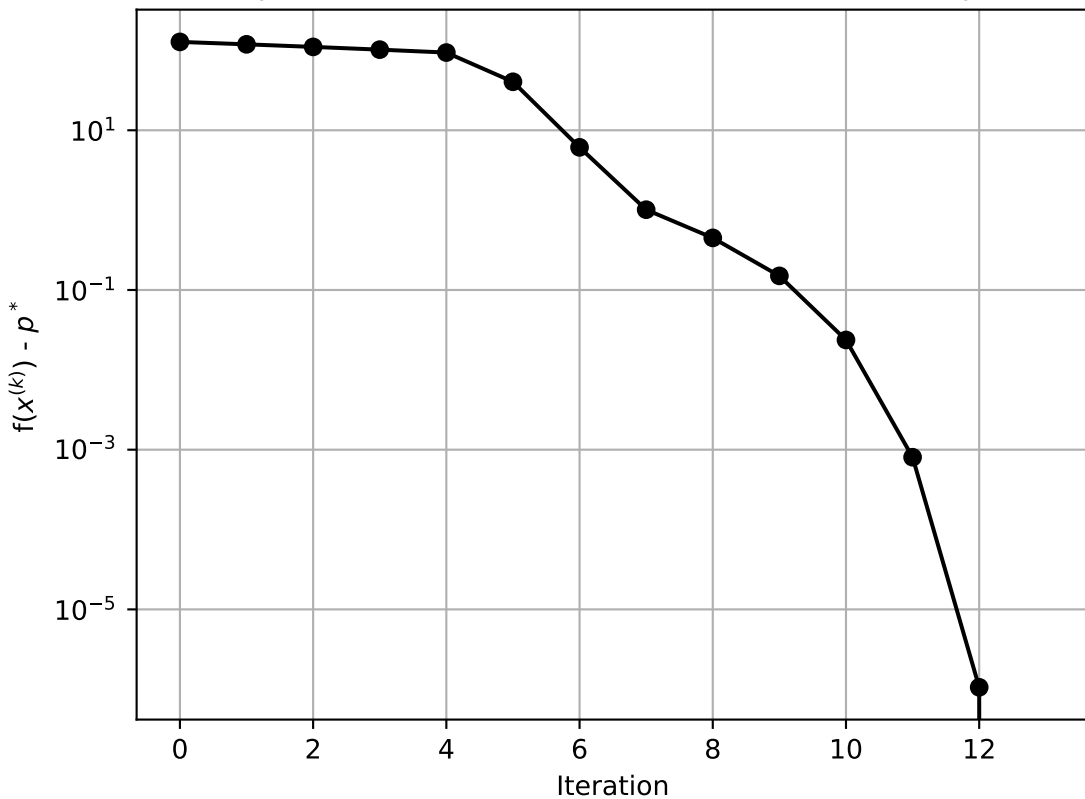
Experiment #9 Gradient Descent: Step Size



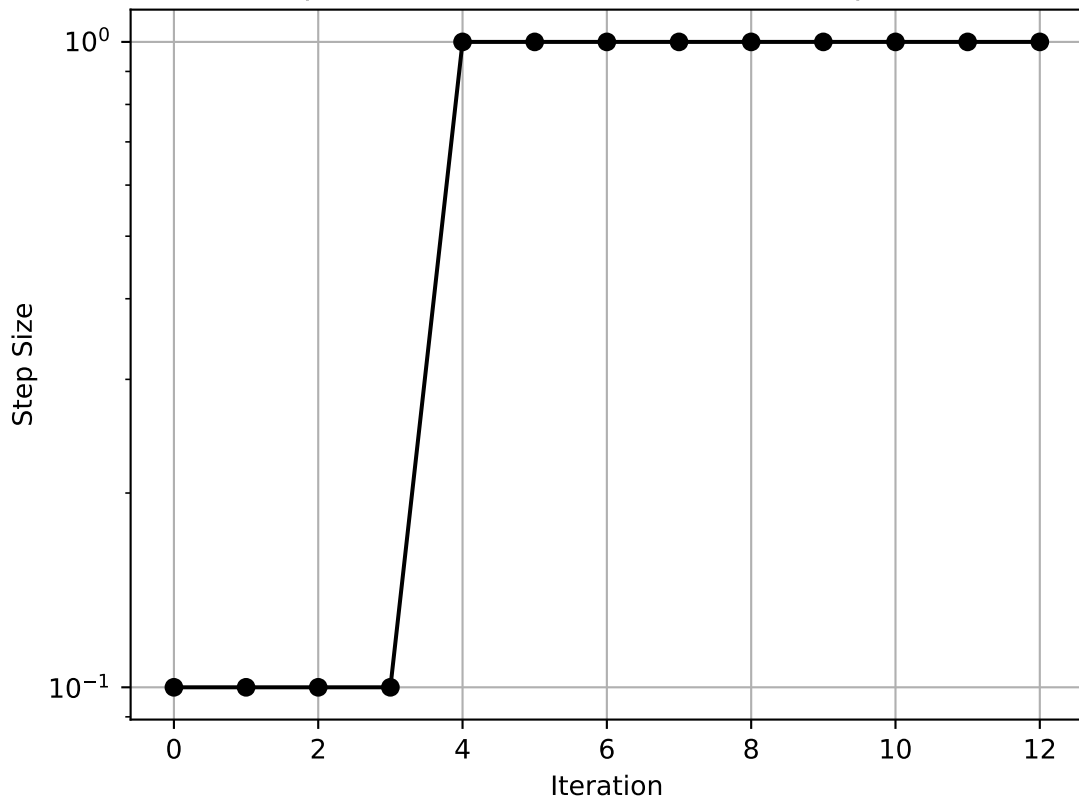
Experiment #1 Newton Descent:  $f(x^{(k)})$



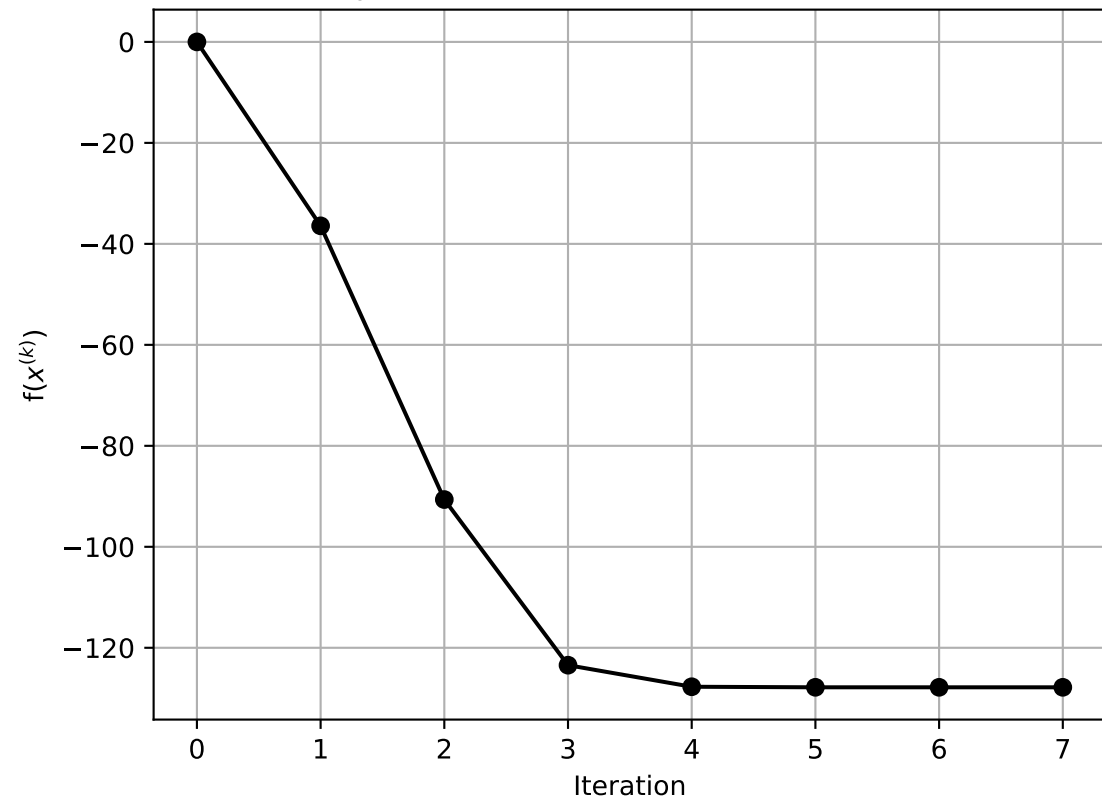
Experiment #1 Newton Descent: Error  $f(x^{(k)}) - p^*$



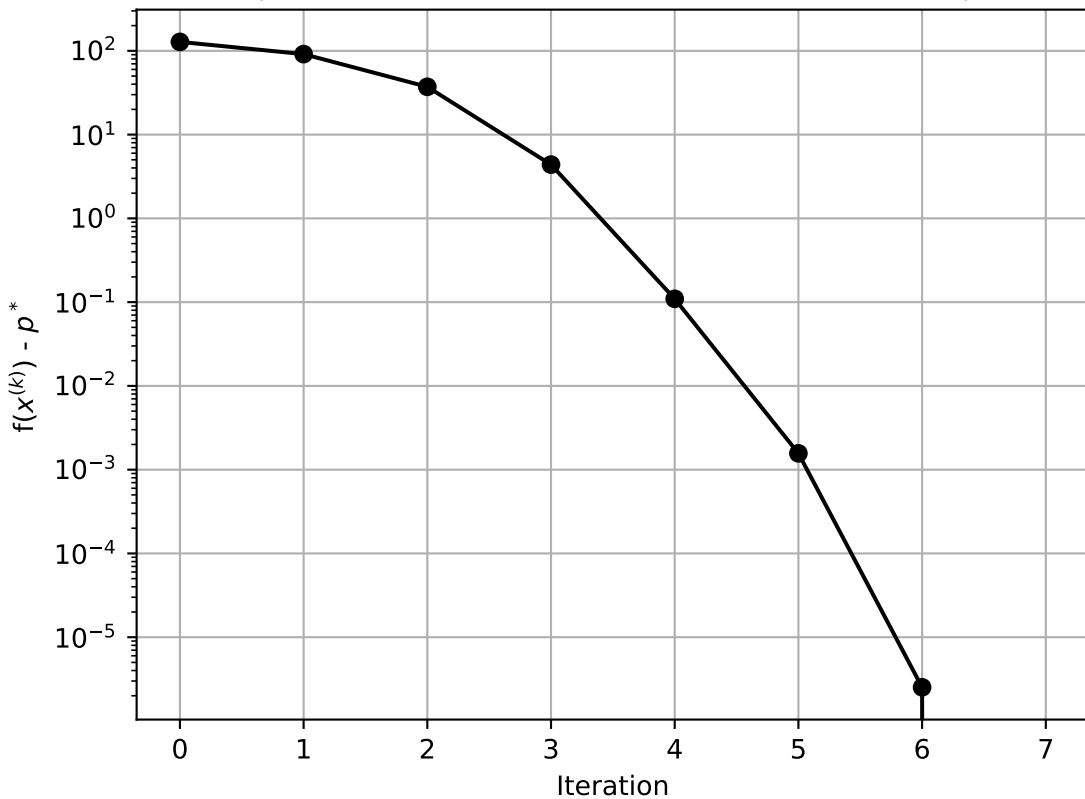
Experiment #1 Newton Descent: Step Size



Experiment #2 Newton Descent:  $f(x^{(k)})$

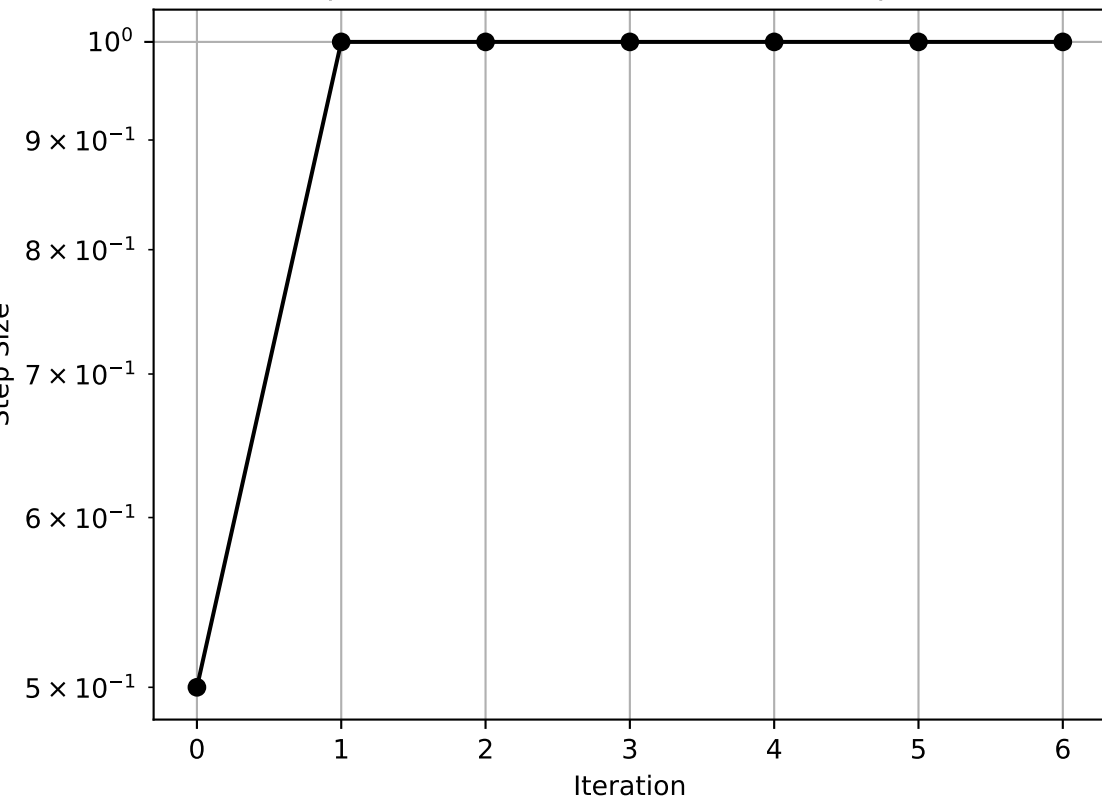


Experiment #2 Newton Descent: Error  $f(x^{(k)}) - p^*$

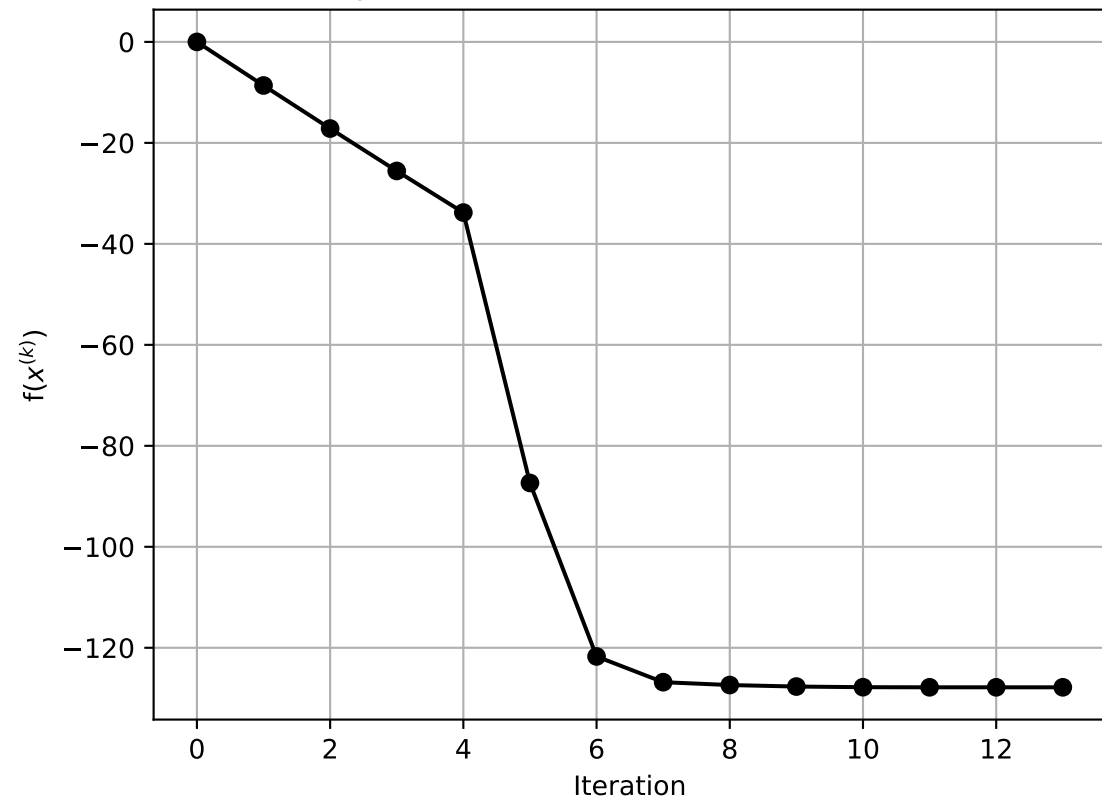




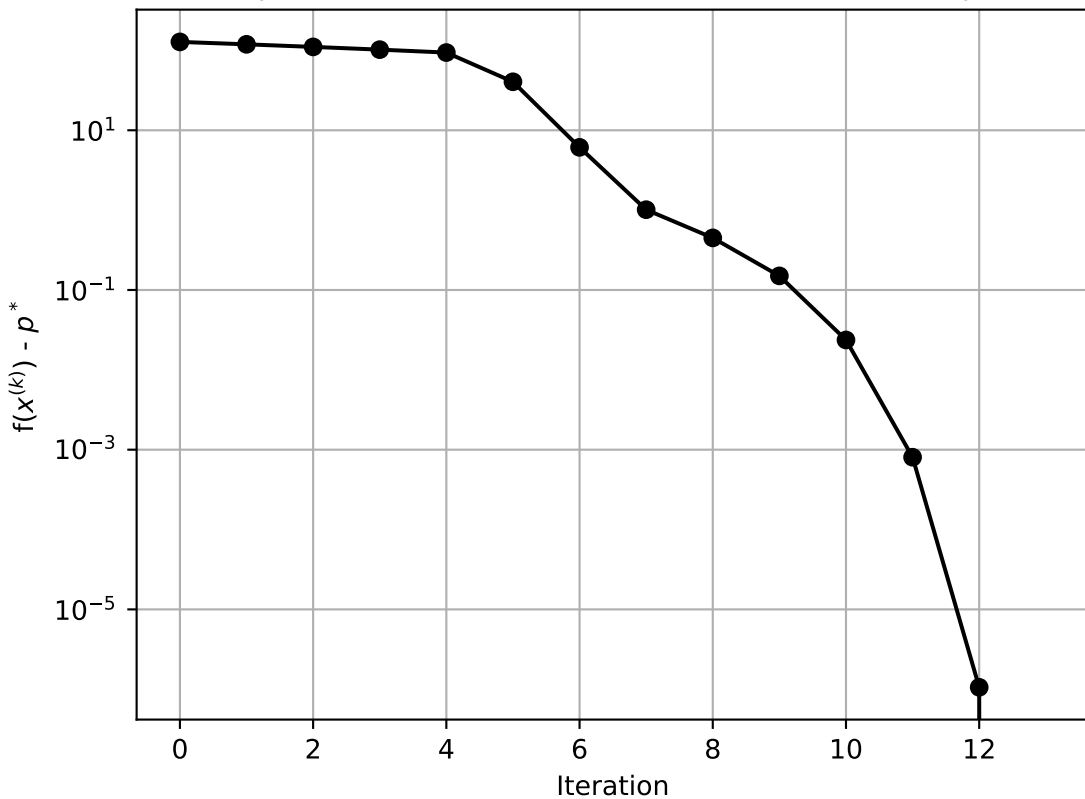
Experiment #2 Newton Descent: Step Size



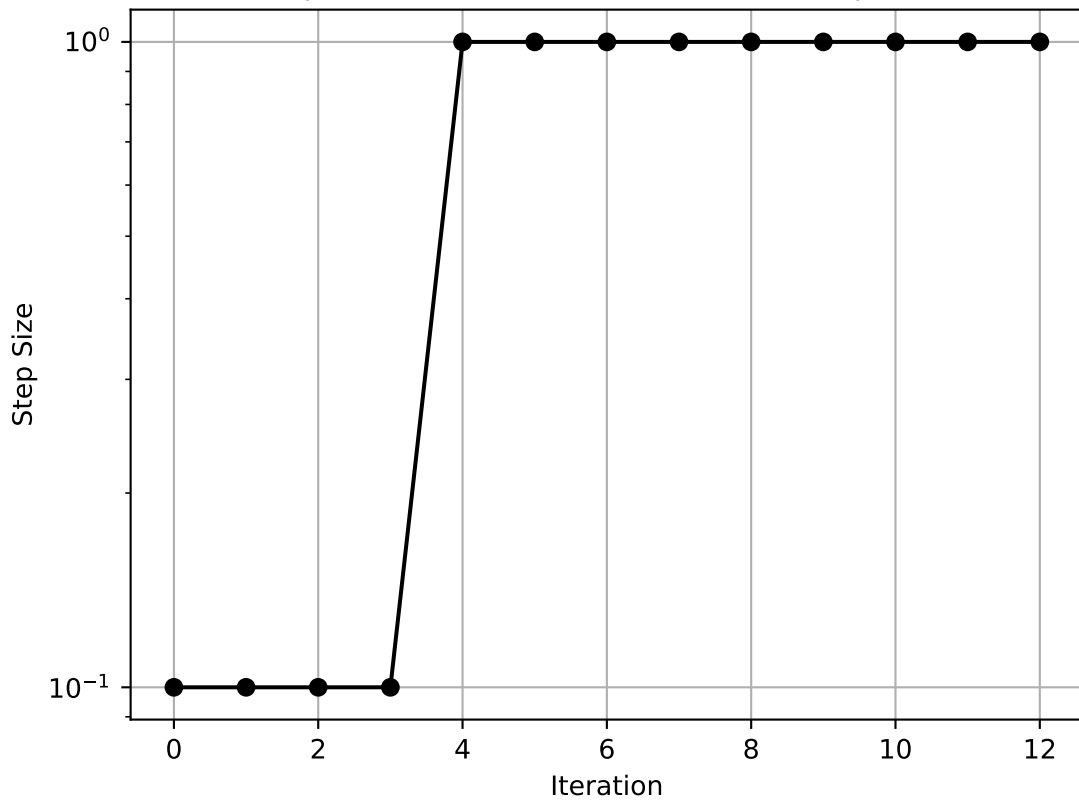
Experiment #3 Newton Descent:  $f(x^{(k)})$



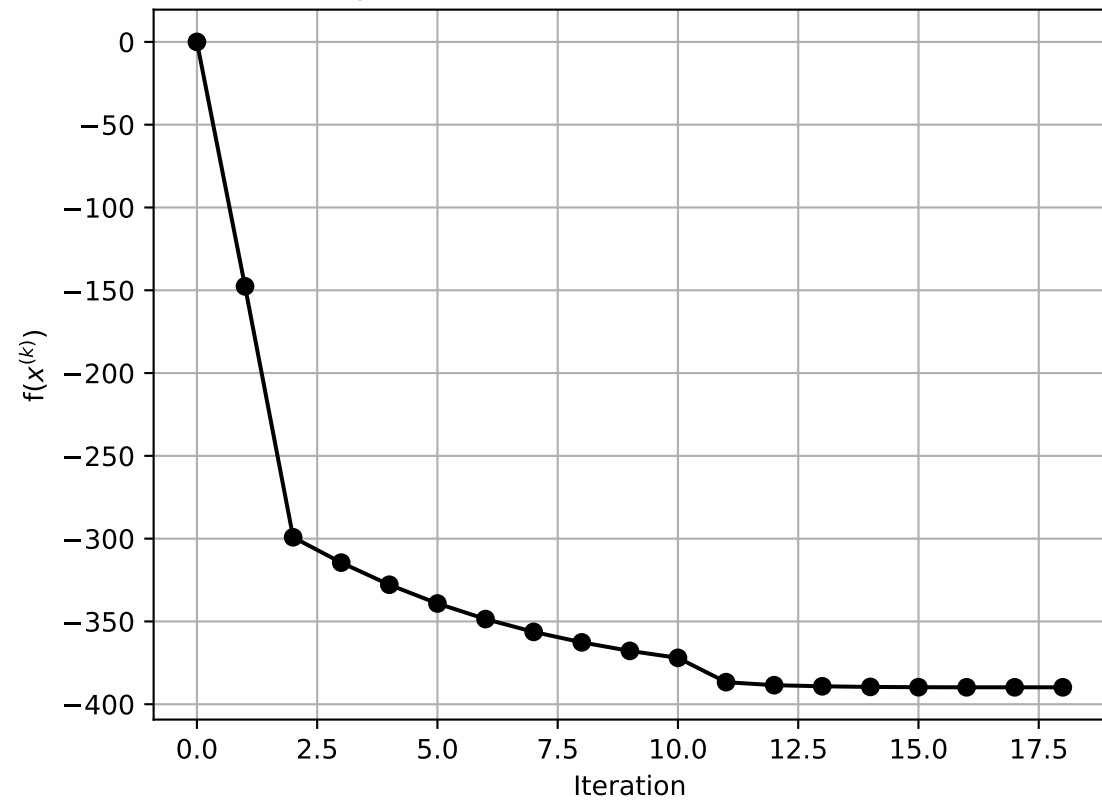
Experiment #3 Newton Descent: Error  $f(x^{(k)}) - p^*$



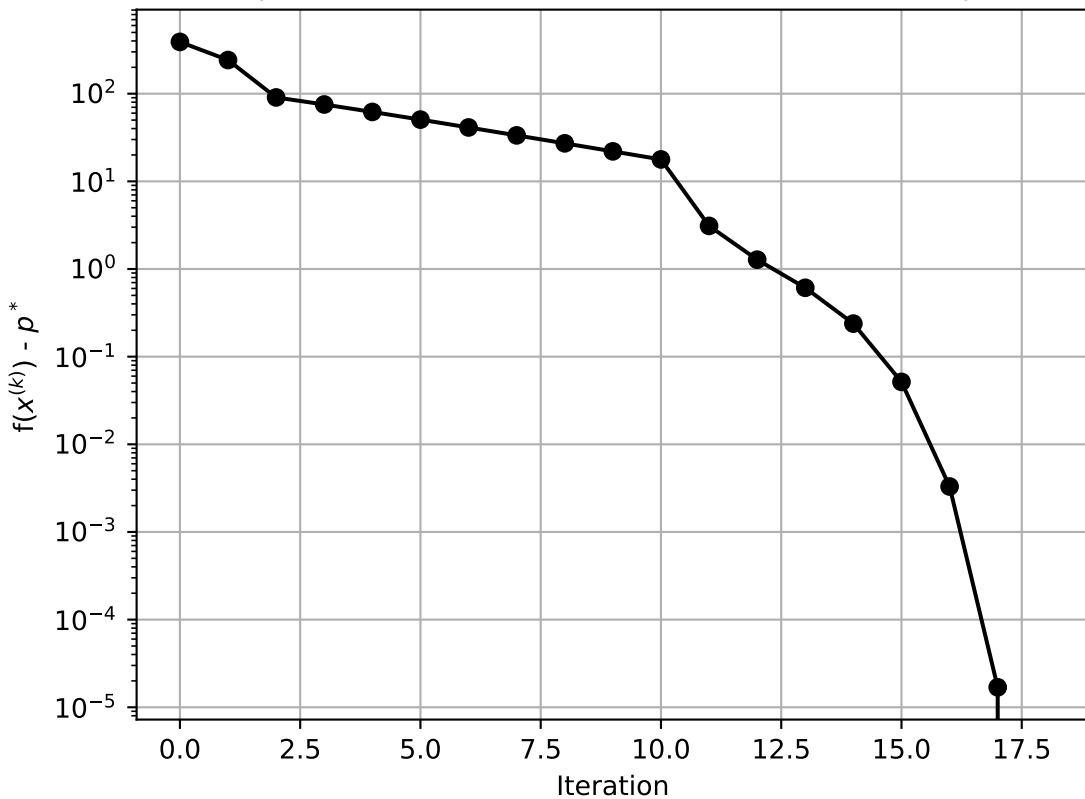
Experiment #3 Newton Descent: Step Size



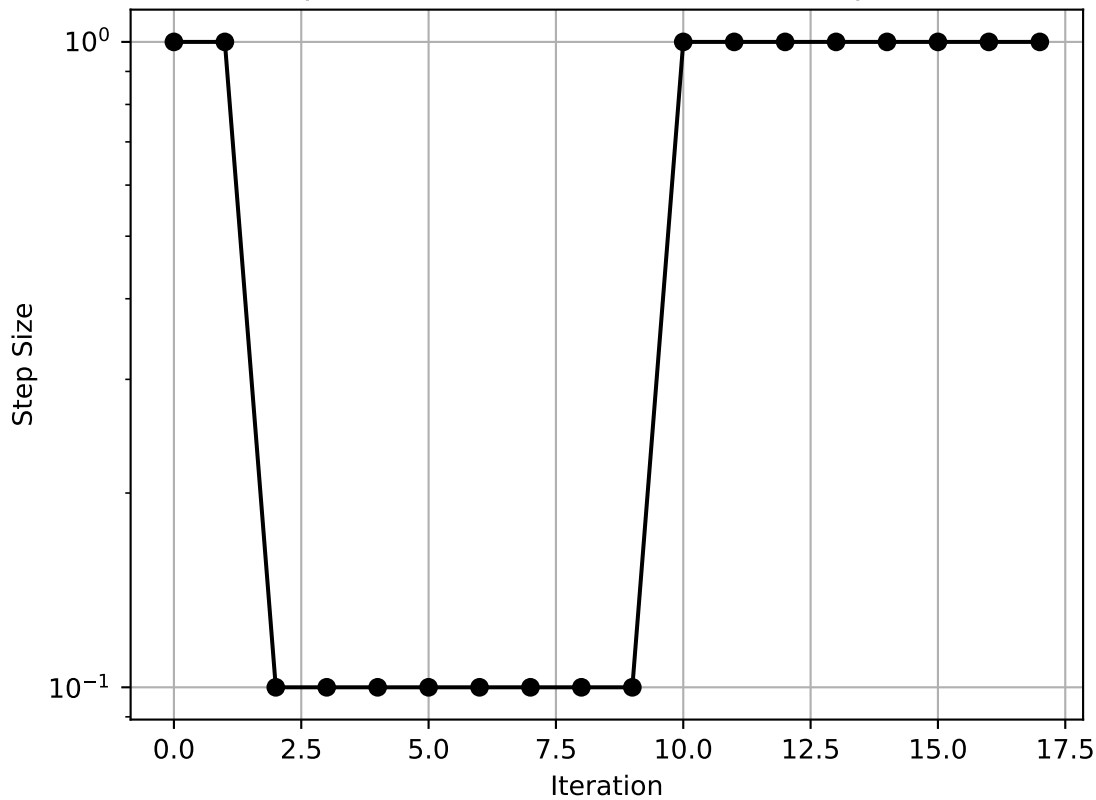
Experiment #4 Newton Descent:  $f(x^{(k)})$



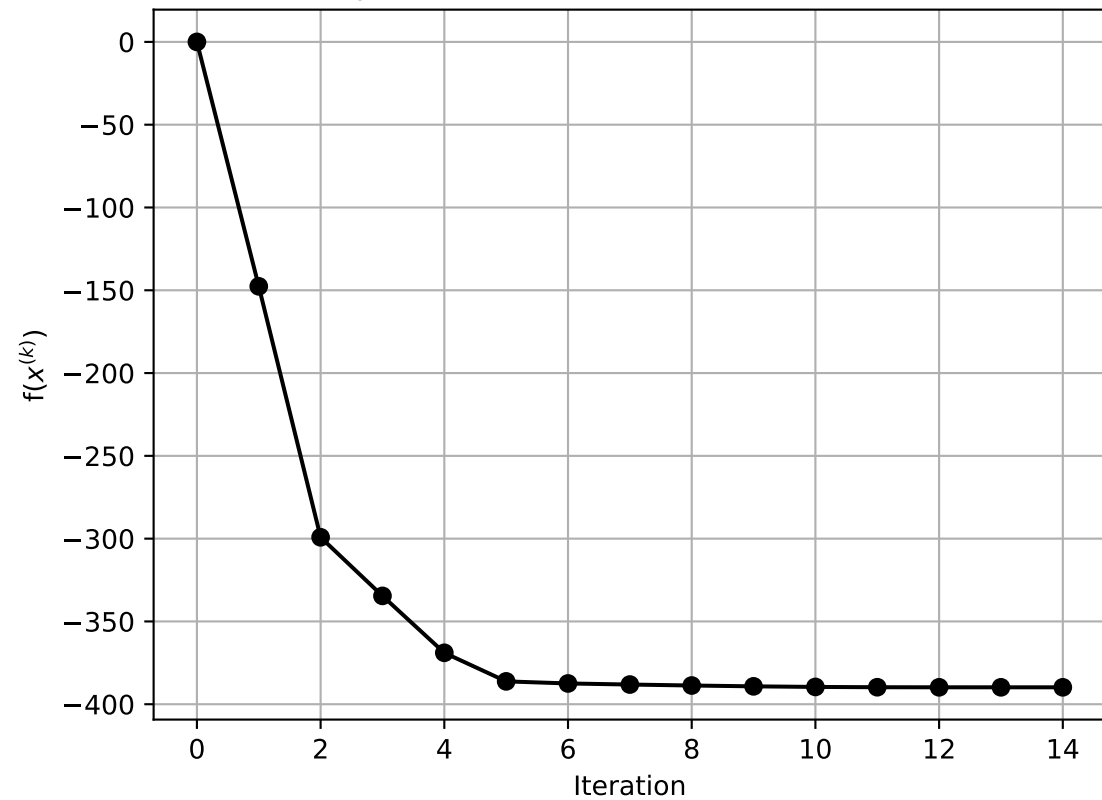
Experiment #4 Newton Descent: Error  $f(x^{(k)}) - p^*$



Experiment #4 Newton Descent: Step Size

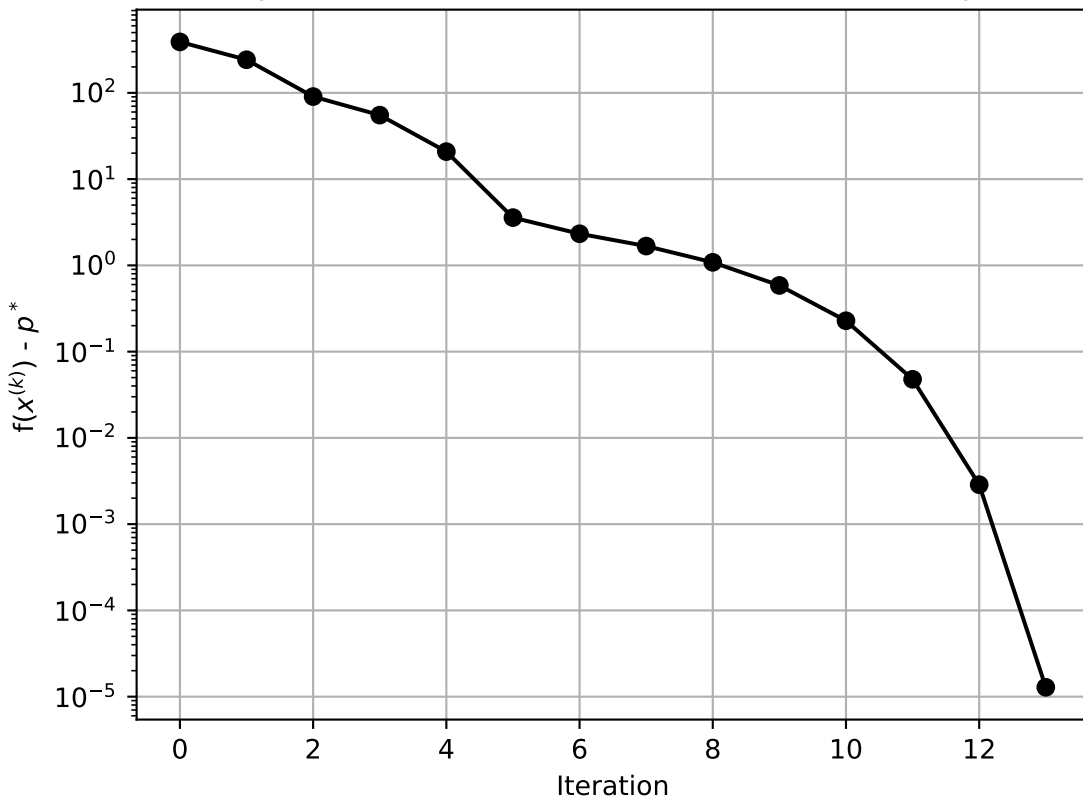


Experiment #5 Newton Descent:  $f(x^{(k)})$

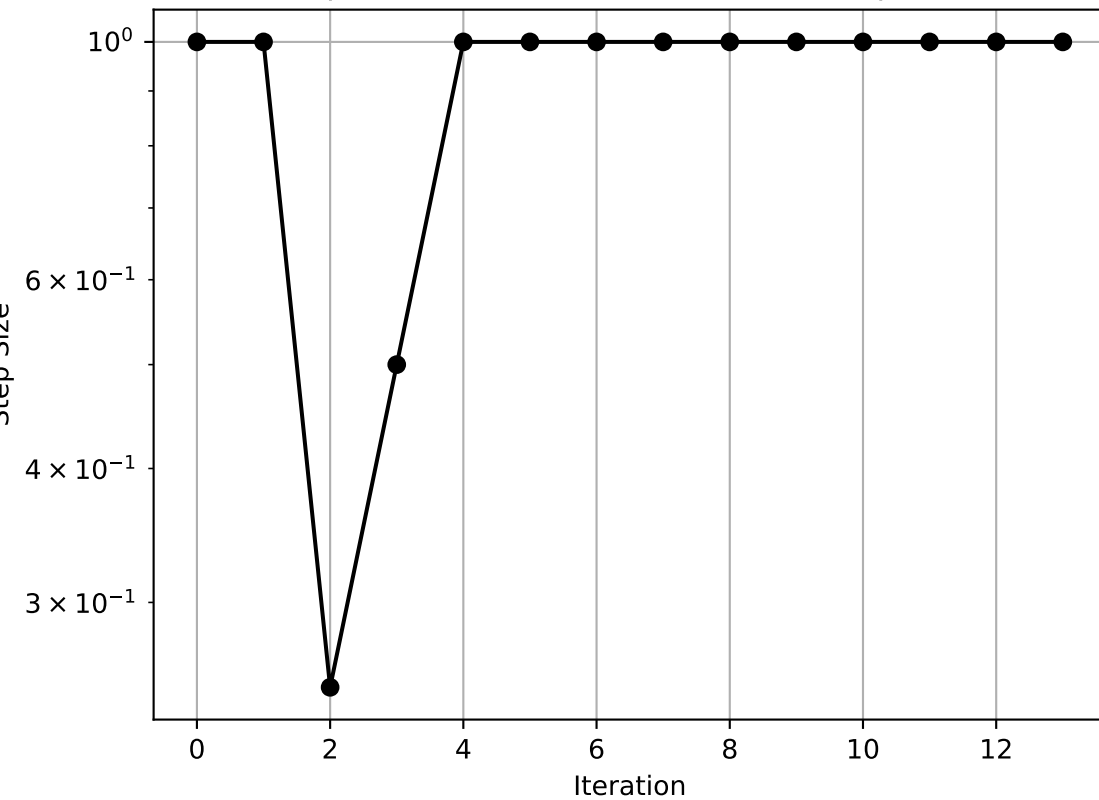




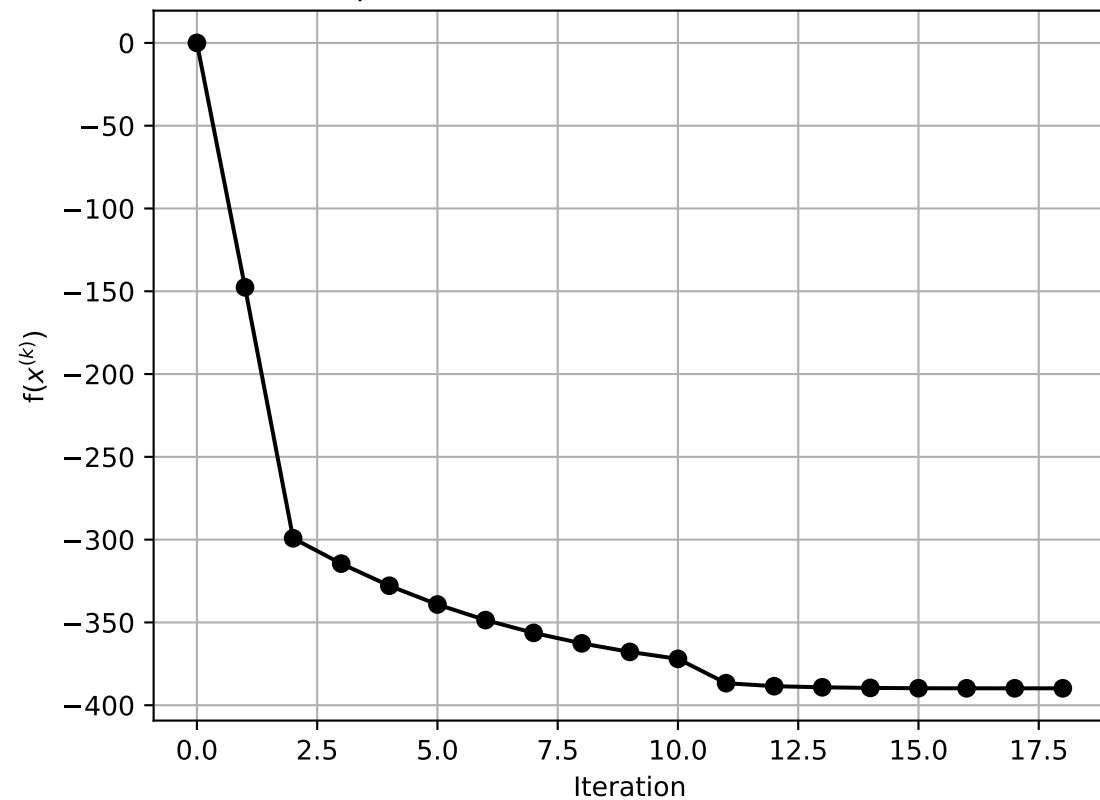
Experiment #5 Newton Descent: Error  $f(x^{(k)}) - p^*$



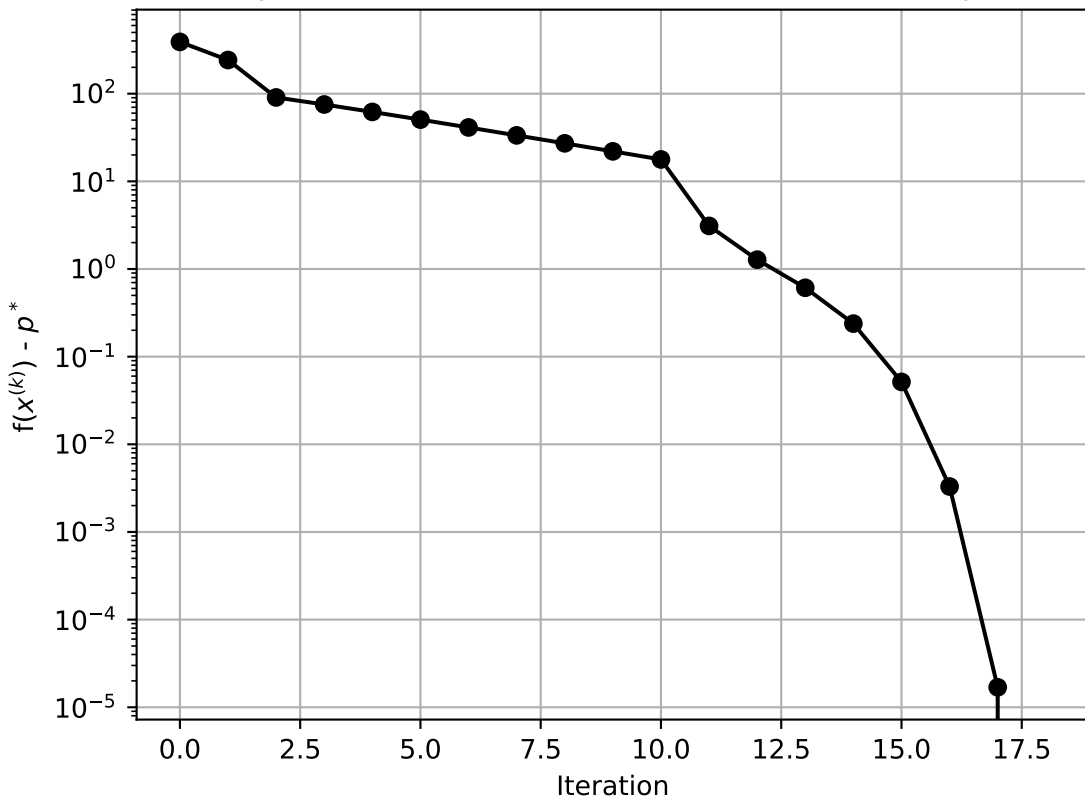
Experiment #5 Newton Descent: Step Size



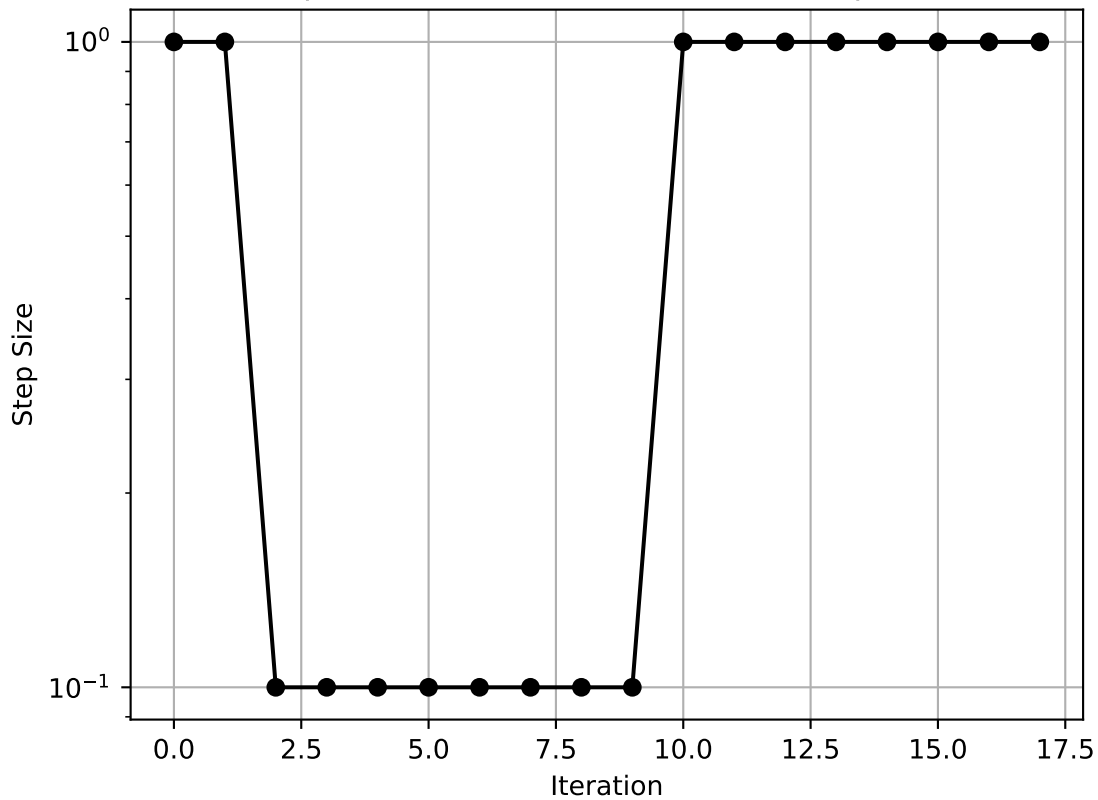
Experiment #6 Newton Descent:  $f(x^{(k)})$



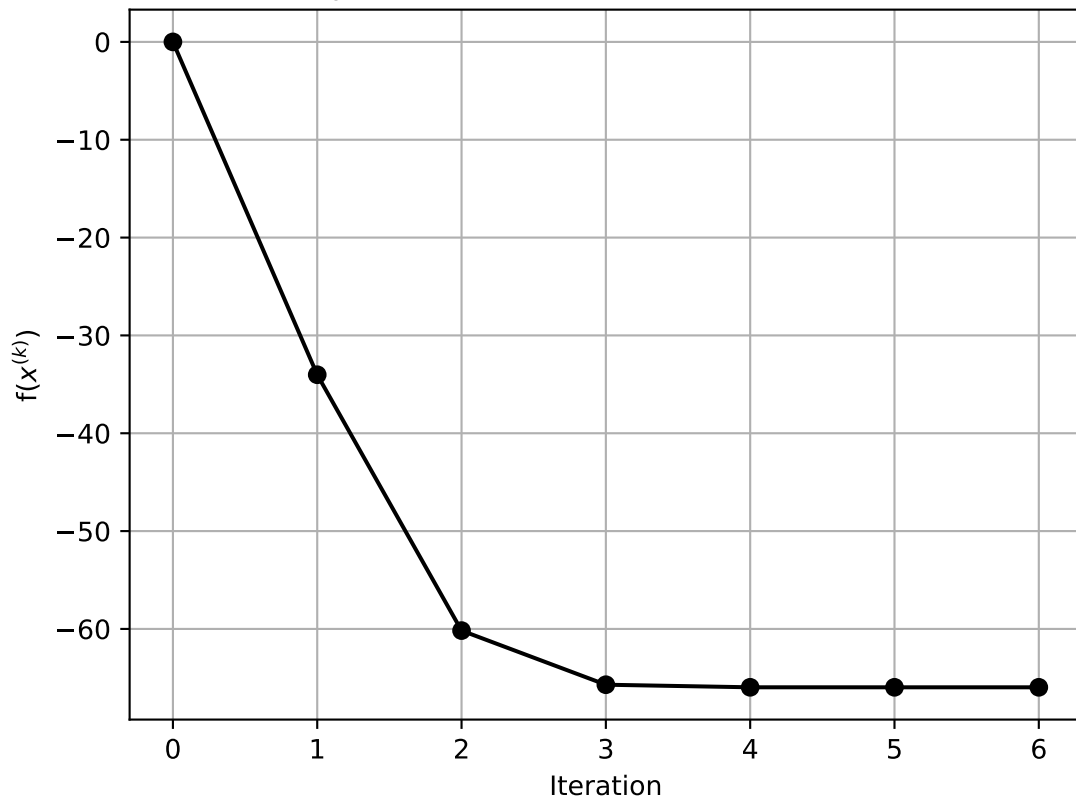
Experiment #6 Newton Descent: Error  $f(x^{(k)}) - p^*$



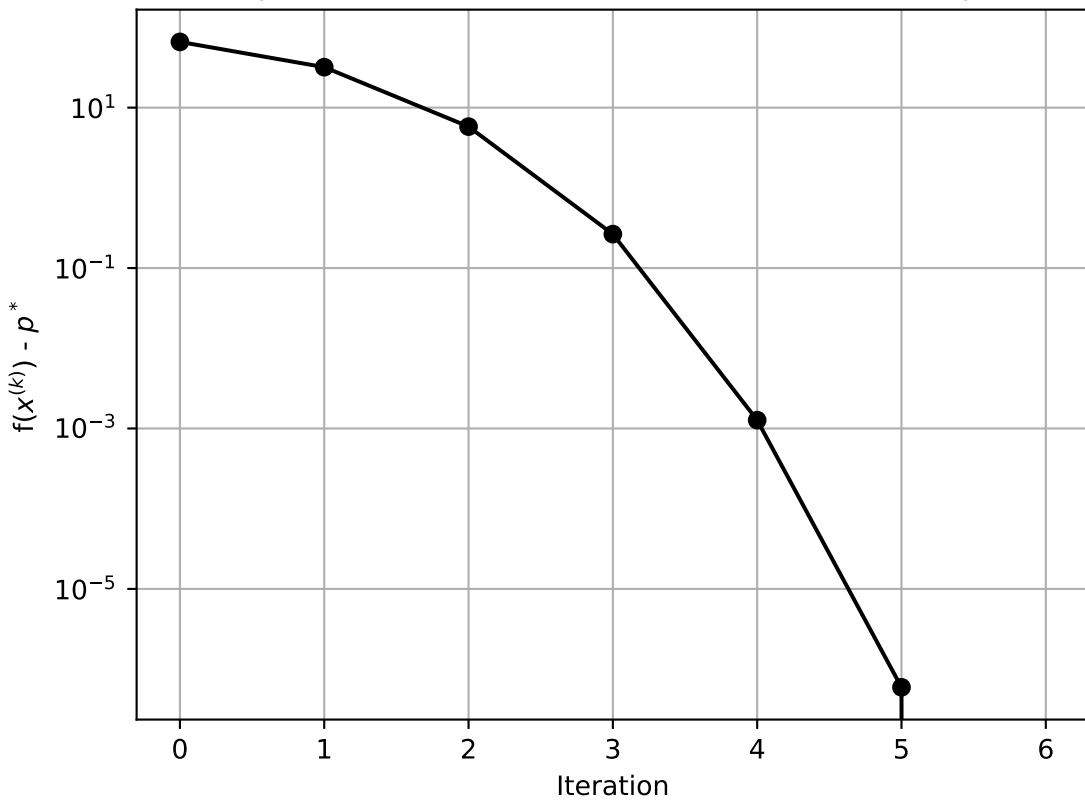
Experiment #6 Newton Descent: Step Size



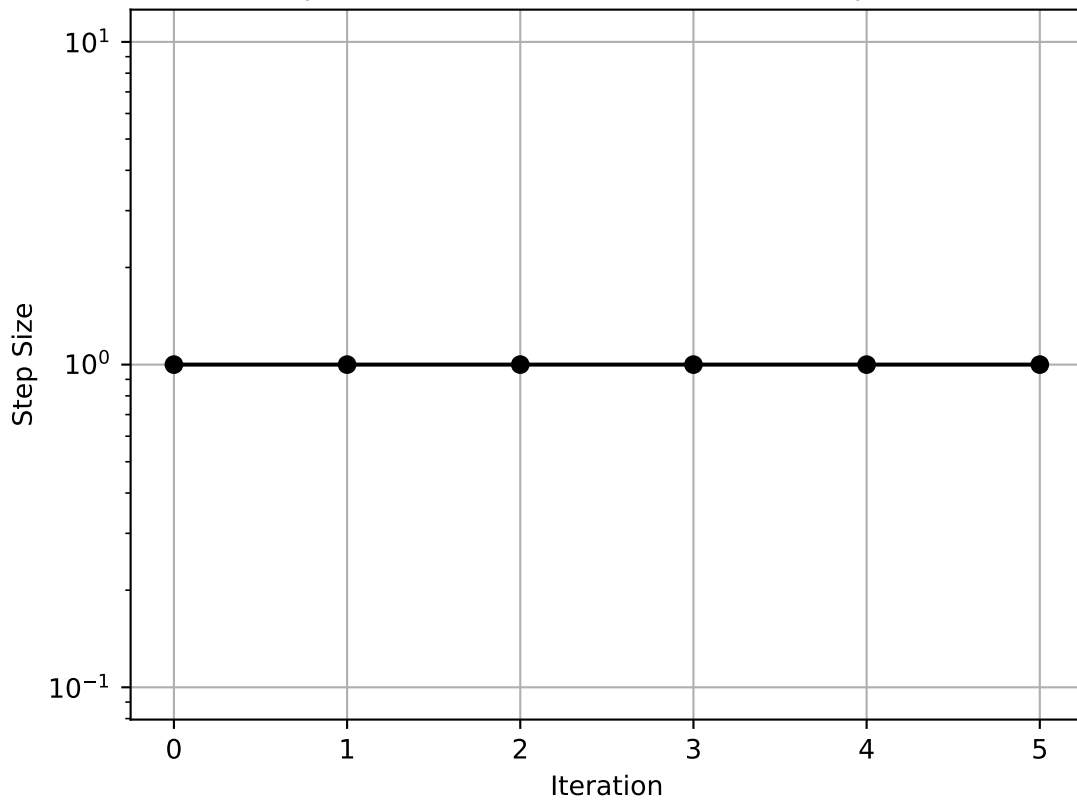
Experiment #7 Newton Descent:  $f(x^{(k)})$



Experiment #7 Newton Descent: Error  $f(x^{(k)}) - p^*$

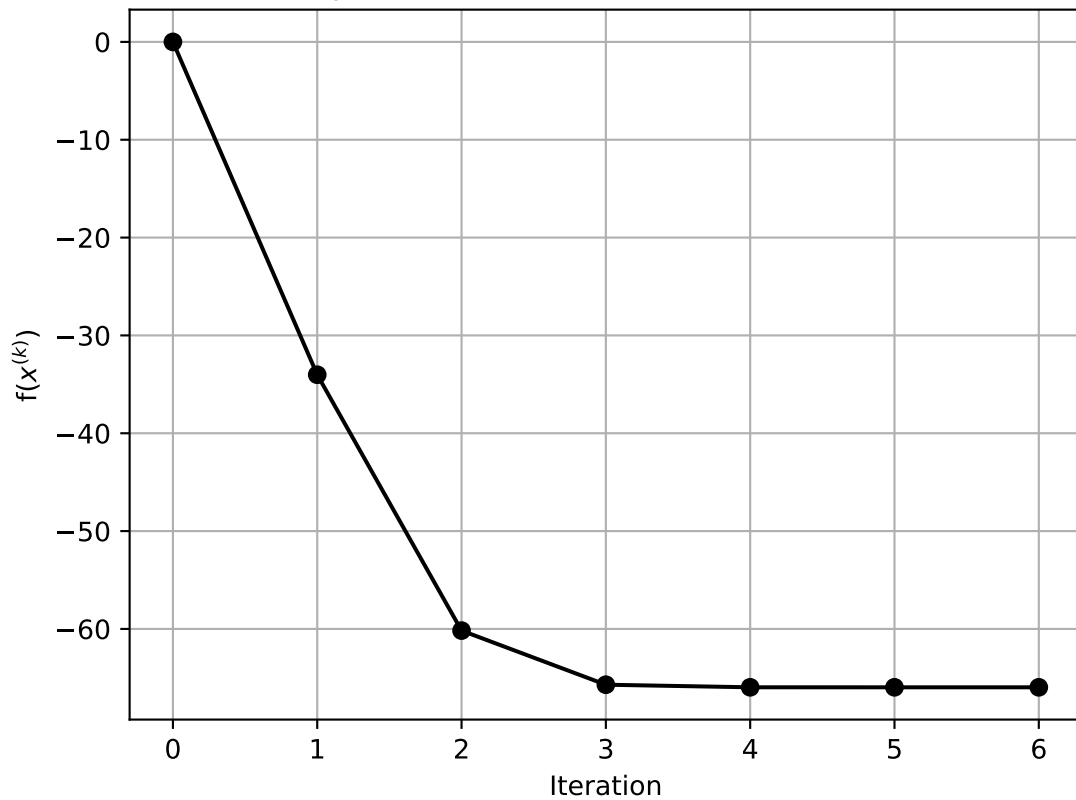


Experiment #7 Newton Descent: Step Size

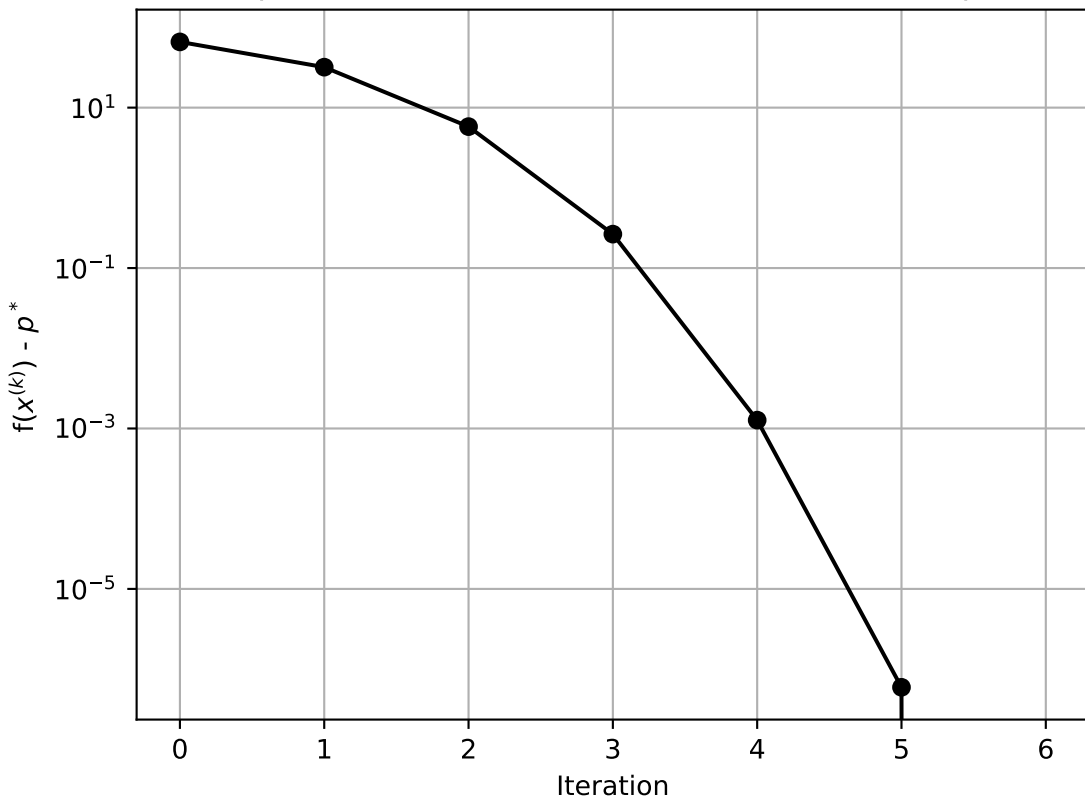




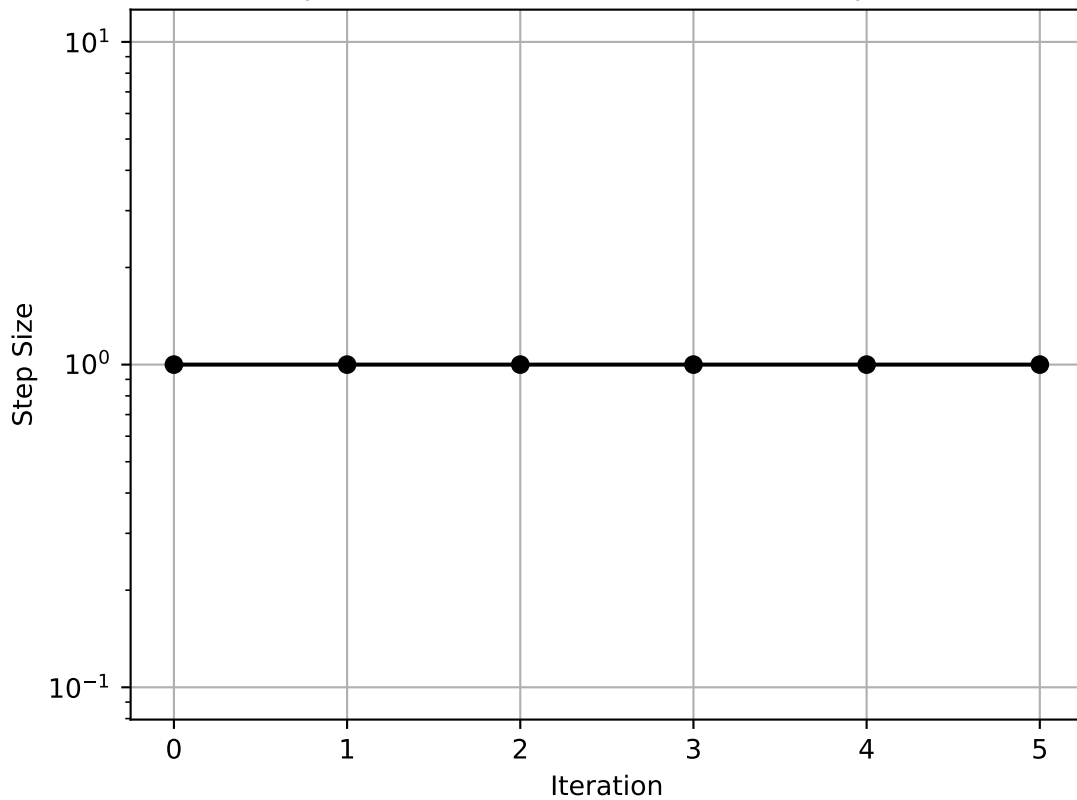
Experiment #8 Newton Descent:  $f(x^{(k)})$



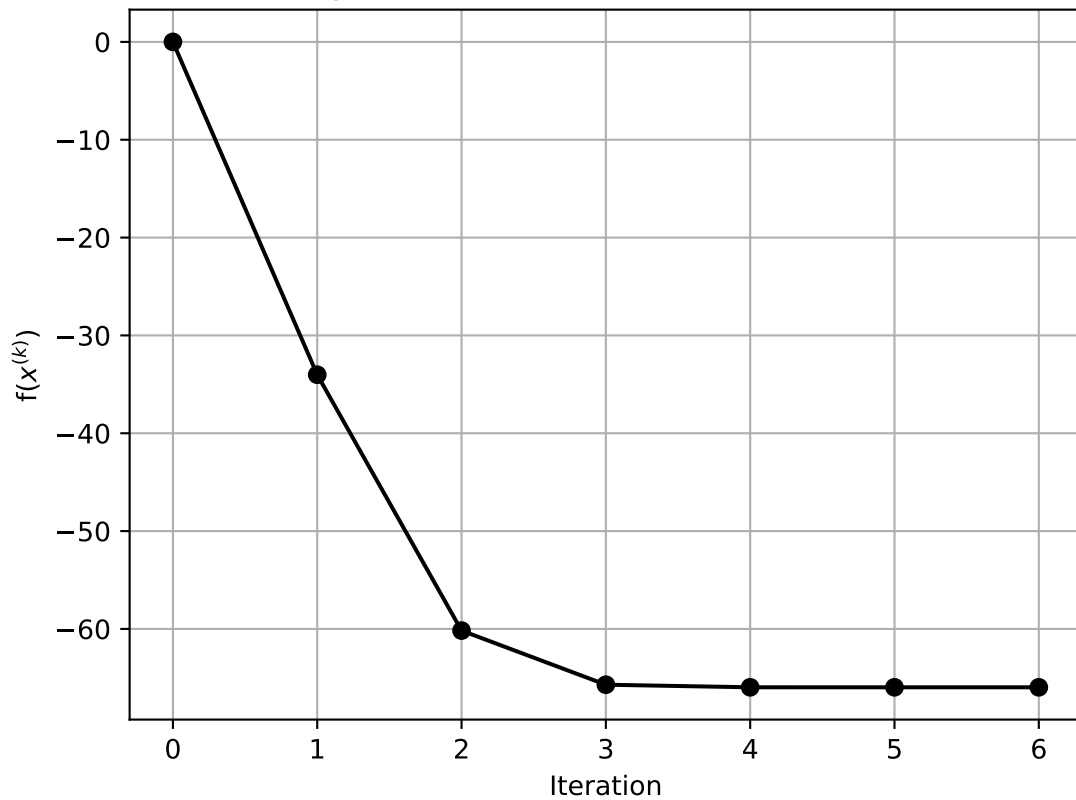
Experiment #8 Newton Descent: Error  $f(x^{(k)}) - p^*$



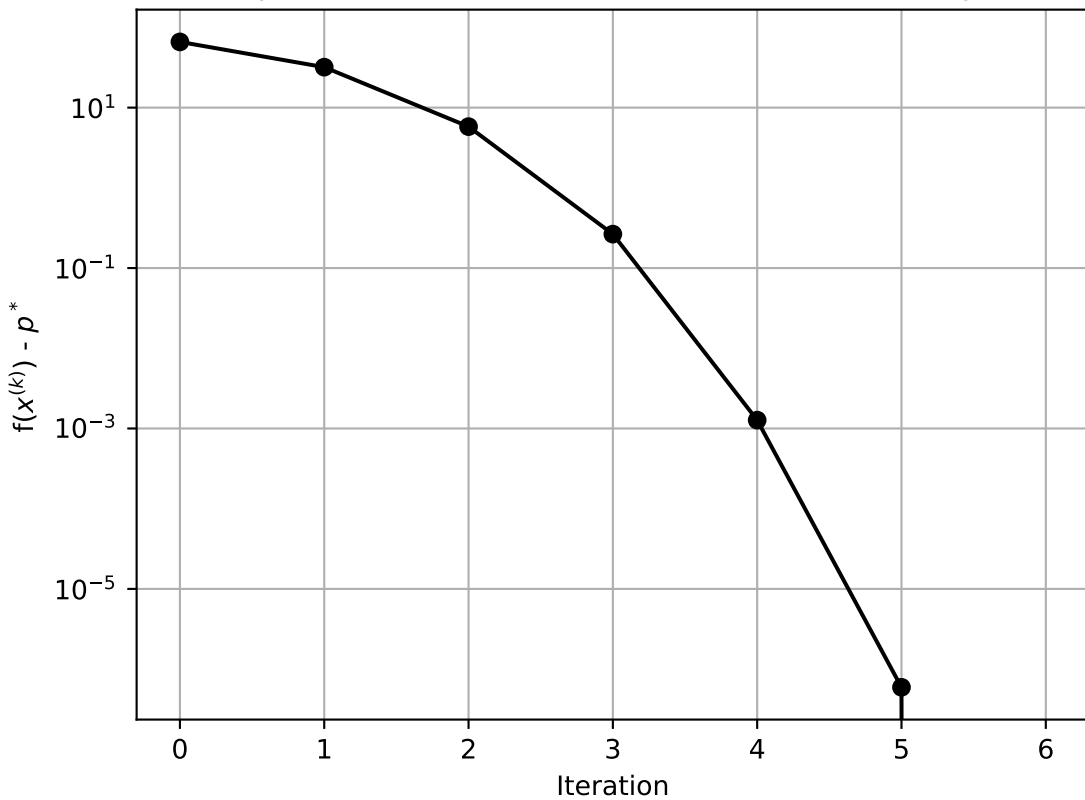
Experiment #8 Newton Descent: Step Size



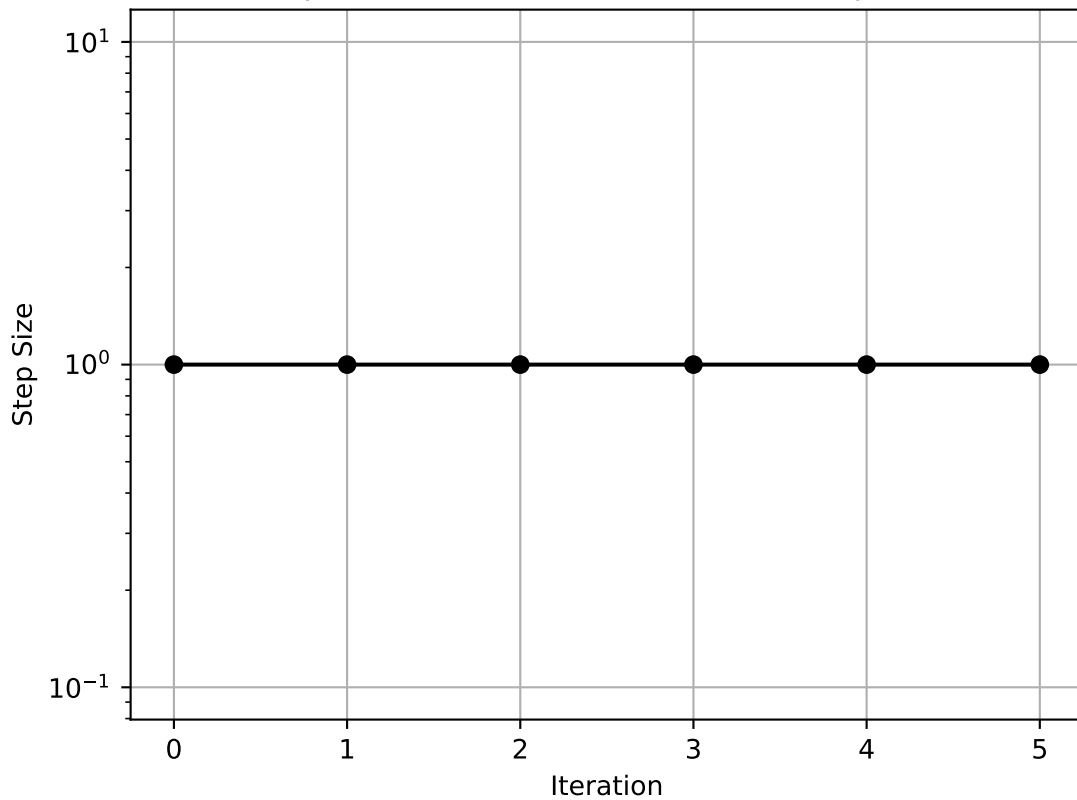
Experiment #9 Newton Descent:  $f(x^{(k)})$



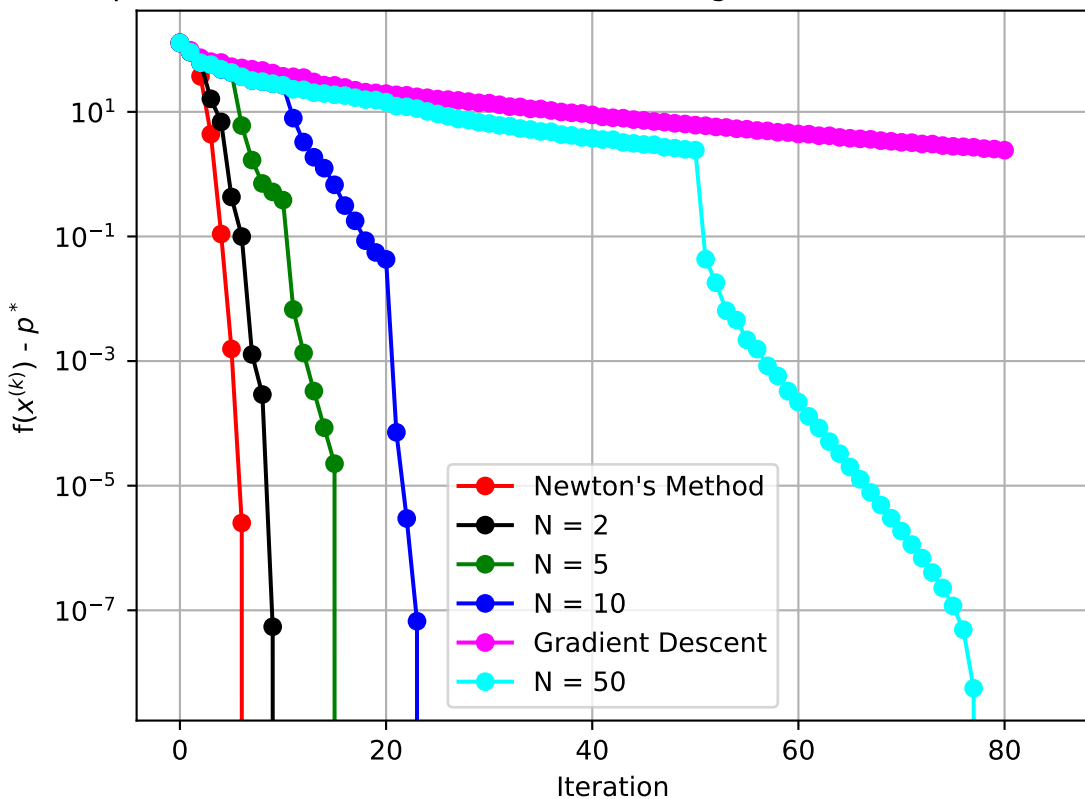
Experiment #9 Newton Descent: Error  $f(x^{(k)}) - p^*$



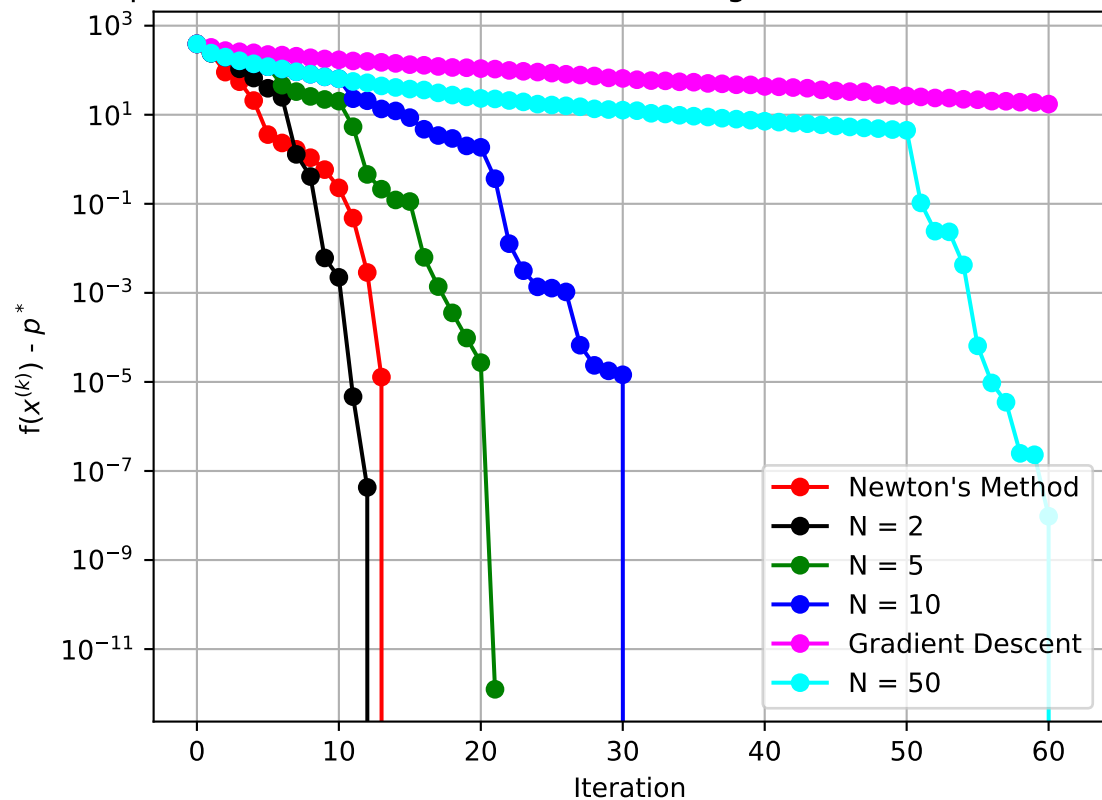
Experiment #9 Newton Descent: Step Size



Experiment #1 Newton Descent(Reusing Hessian): Error  $f(x^{(k)}) - p^*$

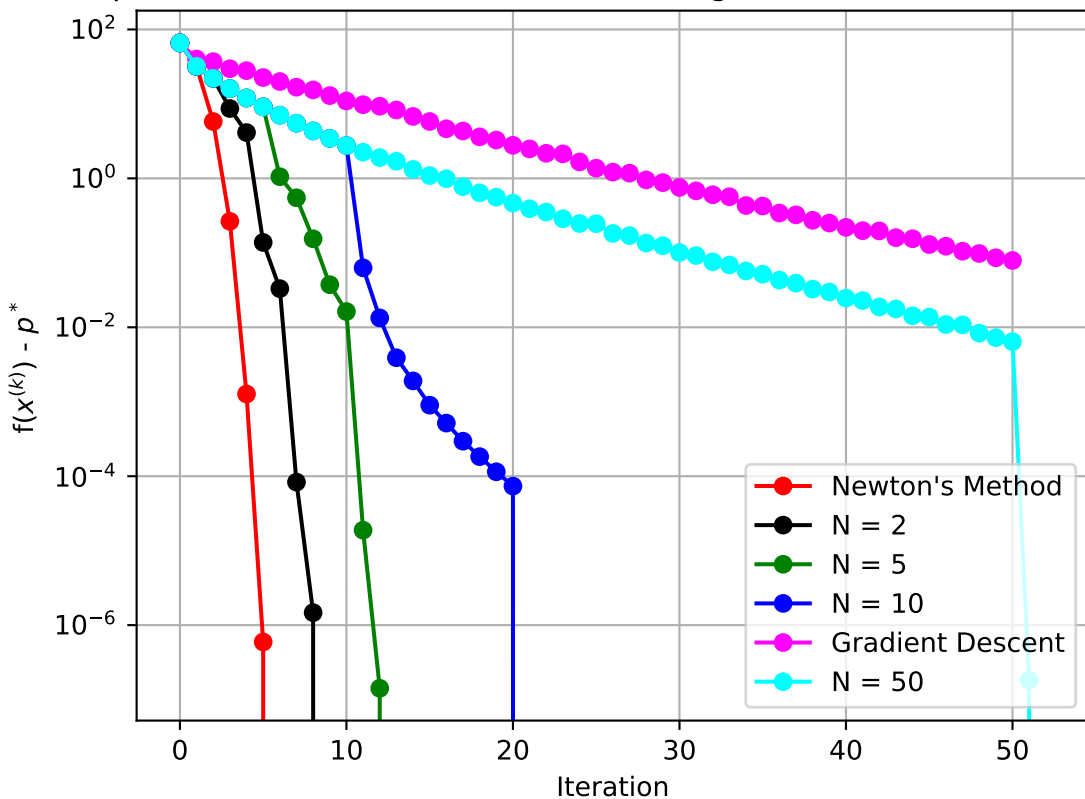


Experiment #2 Newton Descent(Reusing Hessian): Error  $f(x^{(k)}) - p^*$

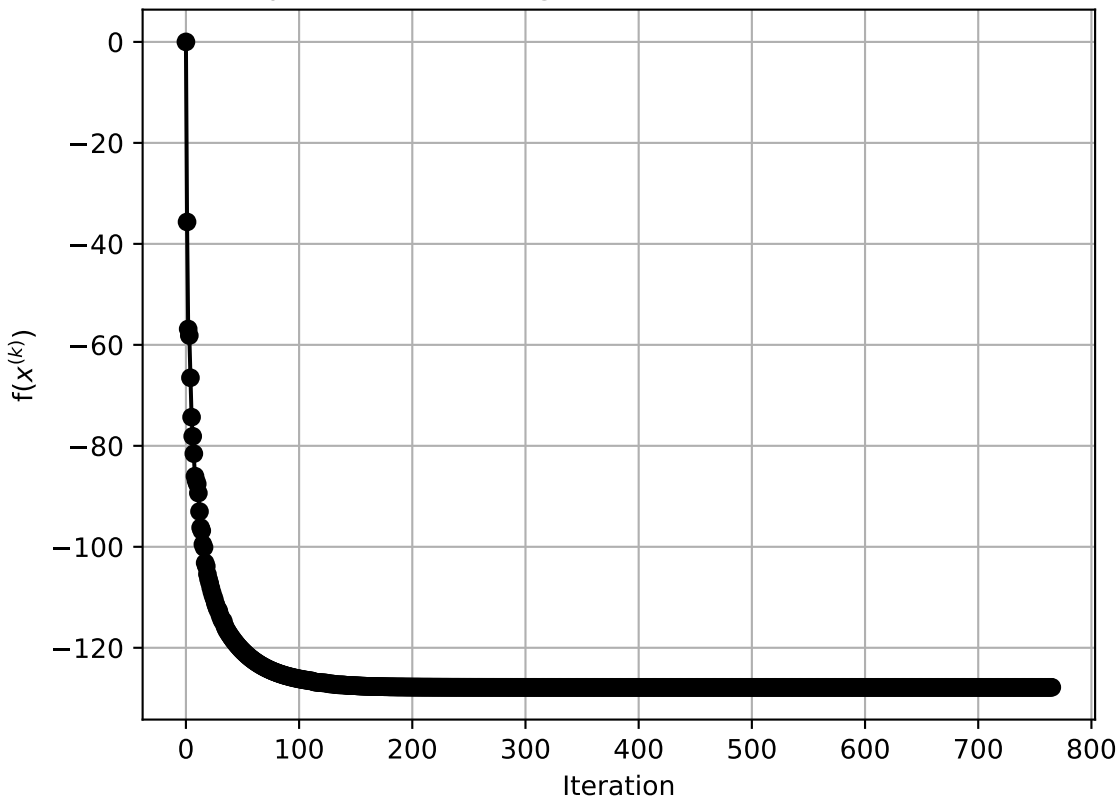




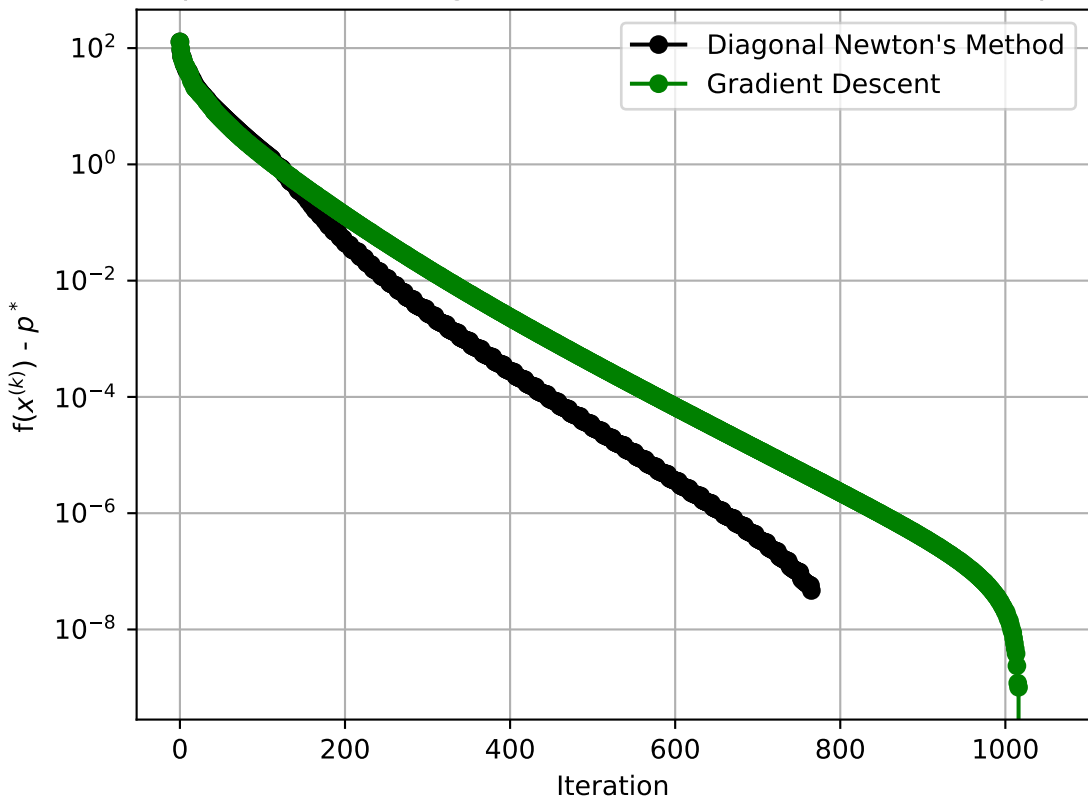
Experiment #3 Newton Descent(Reusing Hessian): Error  $f(x^{(k)}) - p^*$



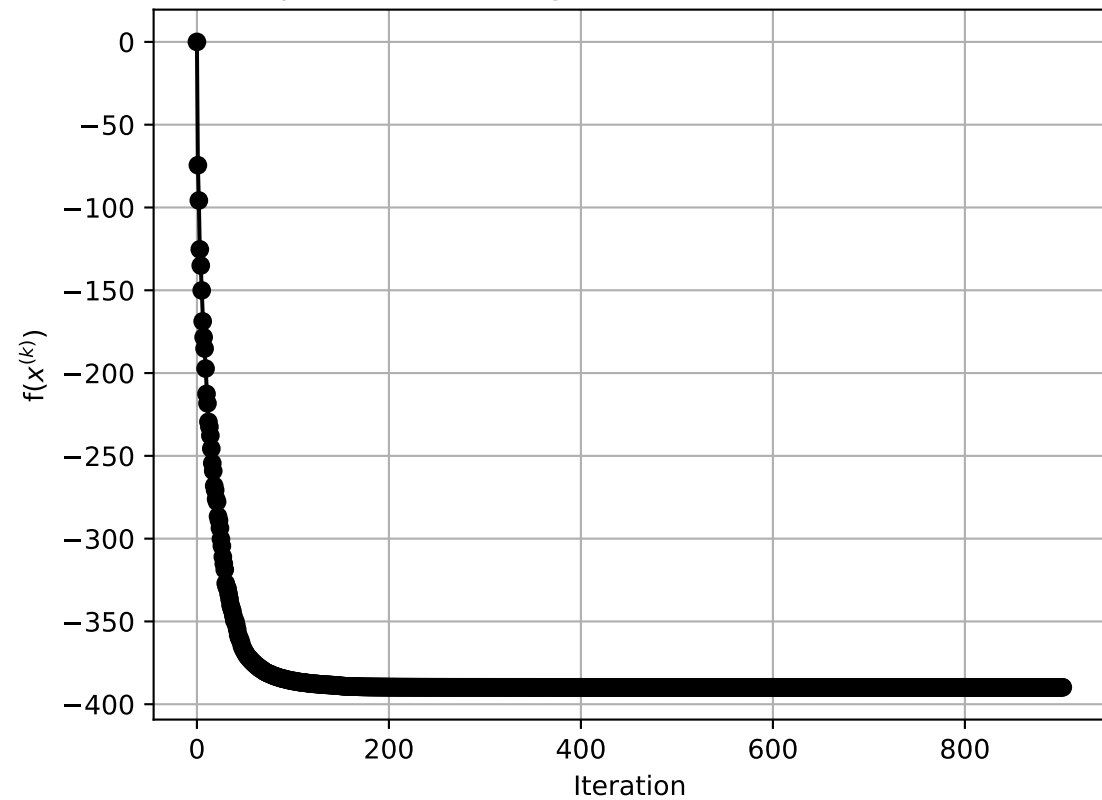
Experiment #1 Diagonal Newton Descent:  $f(x^{(k)})$



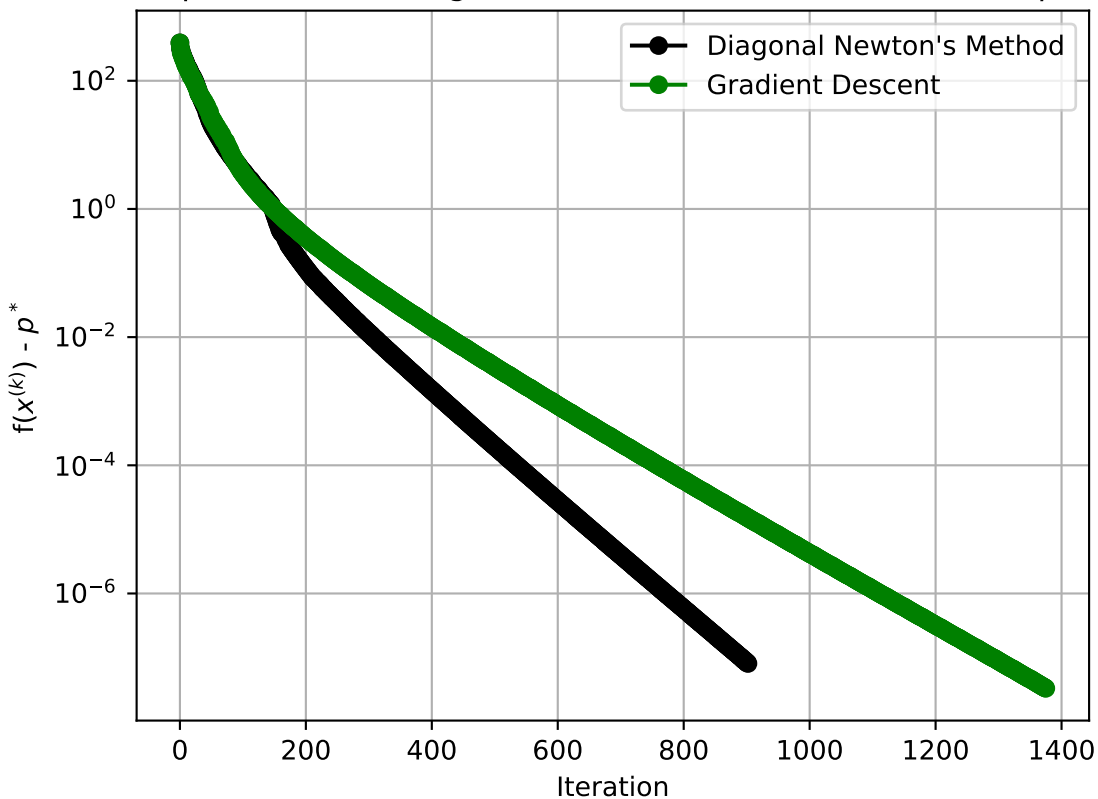
Experiment #1 Diagonal Newton Descent: Error  $f(x^{(k)}) - p^*$



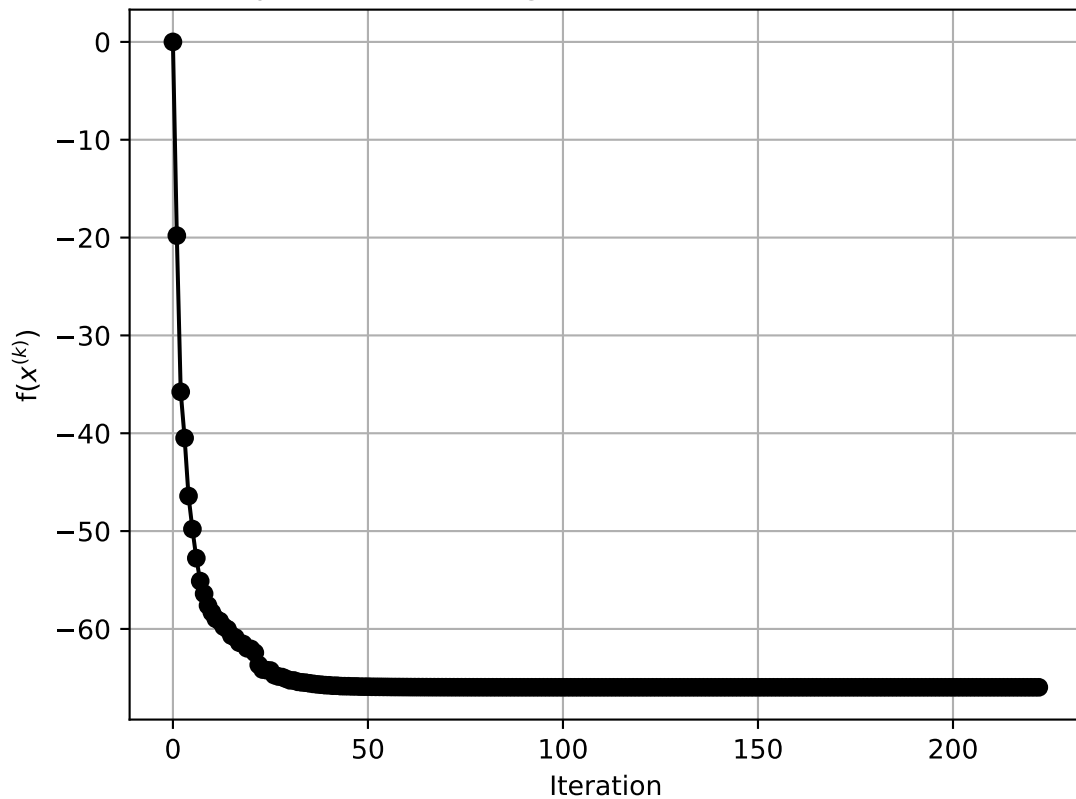
Experiment #2 Diagonal Newton Descent:  $f(x^{(k)})$



Experiment #2 Diagonal Newton Descent: Error  $f(x^{(k)}) - p^*$



Experiment #3 Diagonal Newton Descent:  $f(x^{(k)})$



Experiment #3 Diagonal Newton Descent: Error  $f(x^{(k)}) - p^*$

